



United States Department of Commerce
Technology Administration
National Institute of Standards and Technology

NISTIR 5078

**Thermodynamic Properties of Water:
Tabulation from the IAPWS Formulation 1995
for the Thermodynamic Properties of
Ordinary Water Substance for General
and Scientific Use**

Allan H. Harvey

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Allan H. Harvey

Physical and Chemical Properties Division
Chemical Science and Technology Laboratory
National Institute of Standards and Technology
Boulder, Colorado 80303-3328

October 1998



U.S. DEPARTMENT OF COMMERCE, William M. Daley, Secretary
TECHNOLOGY ADMINISTRATION, Gary R. Bachula, Acting Under Secretary for Technology
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, Raymond G. Kammer, Director

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List of Symbols

| | |
|-----|------------------------------|
| h | enthalpy, kJ/kg |
| p | pressure, MPa |
| s | entropy, kJ/(kg·K) |
| t | temperature, degrees Celsius |
| v | volume, cm ³ /g |

Subscripts

| | |
|---|----------------------|
| L | liquid at saturation |
| V | vapor at saturation |
| s | saturation |

Greek Letters

| | |
|----------|---------------------------------|
| Δ | property change on vaporization |
| ρ | density, kg/m ³ |

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Allan H. Harvey

Physical and Chemical Properties Division
Chemical Science and Technology Laboratory
National Institute of Standards and Technology
325 Broadway
Boulder, CO 80303

Tables are provided for the density, enthalpy, entropy, and volume of water and steam calculated from the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use. This formulation is the current international standard for water's thermodynamic properties, and is implemented in NIST Standard Reference Database 10. The properties are tabulated along the vapor-liquid saturation curve as a function of both temperature and pressure. They are also tabulated for single-phase states on a grid of temperatures and pressures extending to 2000 °C and 1000 MPa.

Key words: density; enthalpy; entropy; steam; steam tables; thermodynamic properties; volume; water

1. Introduction

The current international standard for the thermodynamic properties of ordinary water is the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use [1,2]. We will refer to this formulation as IAPWS-95.

Unfortunately, the paper describing IAPWS-95 [2] has not yet been published, and there is to our knowledge no source of tabulated property values other than the small number of values given in the IAPWS Release [1] for the purpose of checking computer codes. While we anticipate that the needs of most users will be met by the software implementation of this formulation [3], there is still some demand for printed "Steam Tables." The purpose of this report is to meet that demand, though this report may be superseded at a later time by a more thorough Steam Tables book such as the one that was produced for the previous standard by Haar et al. [4].

2. Generation of the Tables

The numbers in these tables were generated from the Fortran code that implements the IAPWS-95 formulation in NIST Standard Reference Database 10, Version 2.1 [3]. They were then copied directly into tables in a word processing program. Most computed values were rounded to five significant digits. The number of digits printed for any value should not be taken as an indication of the accuracy of the formulation at that point; the IAPWS Release (reprinted as Appendix A) should be consulted for that information.

These tables largely follow the example of Haar et al. [4]. However, in the 14 years since that book was published, the purpose of printed Steam Tables has changed. Users who need high accuracy for scientific research or industrial design will use software, not printed tables. The printed tables are now mainly useful for quick estimates and therefore need not be as finely spaced in their coverage of pressures and temperatures. For this reason, the largest table in this report (the single-phase table, Table 3) is somewhat less than half the size of the corresponding table in the book of Haar et al. The tables for saturation properties are also somewhat shorter.

3. Notes on the Tables

In general, these tables should be self-explanatory. Standard notation (documented in the "List of Symbols") has been used, and traditional formatting has been followed. Here, a few specifics which may not be obvious are described.

In Table 3, the subcritical isobars cross the vapor-liquid saturation boundary. The first two lines printed for each isobar give the values of properties for the saturated liquid and saturated vapor, respectively. As is customary, a horizontal line is drawn between the points immediately above and below the phase boundary.

The IAPWS-95 formulation is recommended for fluid states at temperatures up to 1000 °C and 1000 MPa, and tests have shown it to extrapolate reasonably to higher temperatures and pressures and also to metastable liquid conditions at subfreezing temperatures at ambient pressures. (For more details on the range of validity and on extrapolation capabilities, consult the Release reprinted as Appendix A.) All points in Table 3 above 1000 °C should be considered extrapolations. Some of the low-temperature points in Table 3 correspond to conditions where the equilibrium phase would be a solid. For those points at low pressures, this is indicated by italicizing the values. At high pressures, these points are not printed at all since there is no way to verify the formulation's accuracy at those conditions. The solid-fluid equilibrium boundaries were determined from the formulas given by Wagner et al. [5].

The author thanks the ASME Research and Technology Committee on Water and Steam in Thermal Power Systems, Subcommittee on Properties of Water and Steam, for advice and encouragement on this project.

4. References

- [1] Release on the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use, Fredericia, Denmark, 1996. This release is reproduced as Appendix A of this report; copies of this and other IAPWS releases may be obtained from the IAPWS Executive Secretary: Dr. R.B. Dooley, Electric Power Research Institute, 3412 Hillview Avenue, Palo Alto, CA, 94304, USA.
- [2] A. Pruß and W. Wagner, "The IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use," to be submitted to *J. Phys. Chem. Ref. Data*.
- [3] A.H. Harvey, A.P. Peskin, and S.A. Klein, NIST/ASME Steam Properties, Natl. Inst. Stand. Technol. Standard Reference Database 10, Version 2.1 (1997).
- [4] L. Haar, J.S. Gallagher, and G.S. Kell, *NBS/NRC Steam Tables*, Hemisphere, New York (1984).
- [5] W. Wagner, A. Saul, and A. Pruß, "International Equations for the Pressure along the Melting and along the Sublimation Curve of Ordinary Water Substance," *J. Phys. Chem. Ref. Data* 23, 515-527 (1994).

Table 1. Saturation (Temperature)

| $t, ^\circ\text{C}$ | p, MPa | Density, kg/m^3 | | Enthalpy, kJ/kg | | | Entropy, $\text{kJ/(kg}\cdot\text{K)}$ | | | Volume, cm^3/g | |
|---------------------|-----------------|--------------------------|-----------|--------------------------|--------|------------|--|--------|------------|--------------------------------|----------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 0.01 | 0.000 611 7 | 999.79 | 0.004 855 | 0.00 | 2500.9 | 2500.9 | 0.000 00 | 9.1555 | 9.1555 | 1.000 21 | 205 991. |
| 1 | 0.000 657 1 | 999.85 | 0.005 196 | 4.18 | 2502.7 | 2498.6 | 0.015 26 | 9.1291 | 9.1138 | 1.000 15 | 192 439. |
| 2 | 0.000 706 0 | 999.89 | 0.005 563 | 8.39 | 2504.6 | 2496.2 | 0.030 61 | 9.1027 | 9.0720 | 1.000 11 | 179 758. |
| 3 | 0.000 758 1 | 999.92 | 0.005 952 | 12.60 | 2506.4 | 2493.8 | 0.045 89 | 9.0765 | 9.0306 | 1.000 08 | 168 008. |
| 4 | 0.000 813 5 | 999.93 | 0.006 365 | 16.81 | 2508.2 | 2491.4 | 0.061 10 | 9.0505 | 8.9894 | 1.000 07 | 157 116. |
| 5 | 0.000 872 6 | 999.92 | 0.006 802 | 21.02 | 2510.1 | 2489.0 | 0.076 25 | 9.0248 | 8.9486 | 1.000 08 | 147 011. |
| 6 | 0.000 935 4 | 999.89 | 0.007 266 | 25.22 | 2511.9 | 2486.7 | 0.091 34 | 8.9993 | 8.9080 | 1.000 11 | 137 633. |
| 7 | 0.001 002 1 | 999.86 | 0.007 757 | 29.43 | 2513.7 | 2484.3 | 0.106 37 | 8.9741 | 8.8677 | 1.000 14 | 128 923. |
| 8 | 0.001 073 0 | 999.80 | 0.008 276 | 33.63 | 2515.6 | 2481.9 | 0.121 33 | 8.9491 | 8.8278 | 1.000 20 | 120 829. |
| 9 | 0.001 148 3 | 999.74 | 0.008 826 | 37.82 | 2517.4 | 2479.6 | 0.136 24 | 8.9243 | 8.7881 | 1.000 26 | 113 304. |
| 10 | 0.001 228 2 | 999.65 | 0.009 407 | 42.02 | 2519.2 | 2477.2 | 0.151 09 | 8.8998 | 8.7487 | 1.000 35 | 106 303. |
| 11 | 0.001 313 0 | 999.56 | 0.010 021 | 46.22 | 2521.0 | 2474.8 | 0.165 87 | 8.8754 | 8.7096 | 1.000 44 | 99 787. |
| 12 | 0.001 402 8 | 999.45 | 0.010 670 | 50.41 | 2522.9 | 2472.5 | 0.180 61 | 8.8513 | 8.6707 | 1.000 55 | 93 719. |
| 13 | 0.001 498 1 | 999.33 | 0.011 355 | 54.60 | 2524.7 | 2470.1 | 0.195 28 | 8.8274 | 8.6321 | 1.000 67 | 88 064. |
| 14 | 0.001 599 0 | 999.20 | 0.012 078 | 58.79 | 2526.5 | 2467.7 | 0.209 90 | 8.8037 | 8.5938 | 1.000 80 | 82 793. |
| 15 | 0.001 705 8 | 999.06 | 0.012 841 | 62.98 | 2528.3 | 2465.4 | 0.224 46 | 8.7803 | 8.5558 | 1.000 94 | 77 875. |
| 16 | 0.001 818 8 | 998.90 | 0.013 645 | 67.17 | 2530.2 | 2463.0 | 0.238 97 | 8.7570 | 8.5180 | 1.001 10 | 73 286. |
| 17 | 0.001 938 4 | 998.73 | 0.014 493 | 71.36 | 2532.0 | 2460.6 | 0.253 43 | 8.7339 | 8.4805 | 1.001 27 | 69 001. |
| 18 | 0.002 064 7 | 998.55 | 0.015 385 | 75.54 | 2533.8 | 2458.3 | 0.267 83 | 8.7111 | 8.4433 | 1.001 45 | 64 998. |
| 19 | 0.002 198 3 | 998.36 | 0.016 325 | 79.73 | 2535.6 | 2455.9 | 0.282 18 | 8.6884 | 8.4063 | 1.001 64 | 61 256. |
| 20 | 0.002 339 3 | 998.16 | 0.017 314 | 83.91 | 2537.4 | 2453.5 | 0.296 48 | 8.6660 | 8.3695 | 1.001 84 | 57 757. |
| 21 | 0.002 488 2 | 997.95 | 0.018 354 | 88.10 | 2539.3 | 2451.2 | 0.310 73 | 8.6437 | 8.3330 | 1.002 05 | 54 483. |
| 22 | 0.002 645 3 | 997.73 | 0.019 448 | 92.28 | 2541.1 | 2448.8 | 0.324 93 | 8.6217 | 8.2967 | 1.002 28 | 51 418. |
| 23 | 0.002 811 1 | 997.50 | 0.020 598 | 96.46 | 2542.9 | 2446.4 | 0.339 08 | 8.5998 | 8.2607 | 1.002 51 | 48 548. |
| 24 | 0.002 985 8 | 997.25 | 0.021 806 | 100.65 | 2544.7 | 2444.0 | 0.353 18 | 8.5781 | 8.2250 | 1.002 75 | 45 858. |
| 25 | 0.003 169 9 | 997.00 | 0.023 075 | 104.83 | 2546.5 | 2441.7 | 0.367 22 | 8.5566 | 8.1894 | 1.003 01 | 43 337. |
| 26 | 0.003 363 9 | 996.74 | 0.024 406 | 109.01 | 2548.3 | 2439.3 | 0.381 23 | 8.5353 | 8.1541 | 1.003 27 | 40 973. |
| 27 | 0.003 568 1 | 996.47 | 0.025 804 | 113.19 | 2550.1 | 2436.9 | 0.395 18 | 8.5142 | 8.1191 | 1.003 54 | 38 754. |
| 28 | 0.003 783 1 | 996.19 | 0.027 269 | 117.37 | 2551.9 | 2434.6 | 0.409 08 | 8.4933 | 8.0842 | 1.003 82 | 36 672. |
| 29 | 0.004 009 2 | 995.90 | 0.028 805 | 121.55 | 2553.7 | 2432.2 | 0.422 94 | 8.4725 | 8.0496 | 1.004 11 | 34 716. |
| 30 | 0.004 247 0 | 995.61 | 0.030 415 | 125.73 | 2555.5 | 2429.8 | 0.436 75 | 8.4520 | 8.0152 | 1.004 41 | 32 878. |
| 31 | 0.004 496 9 | 995.30 | 0.032 102 | 129.91 | 2557.3 | 2427.4 | 0.450 52 | 8.4316 | 7.9810 | 1.004 72 | 31 151. |
| 32 | 0.004 759 6 | 994.99 | 0.033 868 | 134.09 | 2559.2 | 2425.1 | 0.464 24 | 8.4113 | 7.9471 | 1.005 04 | 29 526. |
| 33 | 0.005 035 4 | 994.66 | 0.035 717 | 138.27 | 2561.0 | 2422.7 | 0.477 92 | 8.3913 | 7.9134 | 1.005 37 | 27 998. |
| 34 | 0.005 325 1 | 994.33 | 0.037 651 | 142.45 | 2562.8 | 2420.3 | 0.491 55 | 8.3714 | 7.8799 | 1.005 70 | 26 560. |
| 35 | 0.005 629 0 | 993.99 | 0.039 674 | 146.63 | 2564.5 | 2417.9 | 0.505 13 | 8.3517 | 7.8466 | 1.006 05 | 25 205. |
| 36 | 0.005 947 9 | 993.64 | 0.041 790 | 150.81 | 2566.3 | 2415.5 | 0.518 67 | 8.3321 | 7.8135 | 1.006 40 | 23 929. |
| 37 | 0.006 282 3 | 993.29 | 0.044 001 | 154.99 | 2568.1 | 2413.1 | 0.532 17 | 8.3127 | 7.7806 | 1.006 76 | 22 727. |
| 38 | 0.006 632 8 | 992.92 | 0.046 311 | 159.17 | 2569.9 | 2410.8 | 0.545 62 | 8.2935 | 7.7479 | 1.007 13 | 21 593. |
| 39 | 0.007 000 2 | 992.55 | 0.048 723 | 163.35 | 2571.7 | 2408.4 | 0.559 03 | 8.2745 | 7.7154 | 1.007 50 | 20 524. |
| 40 | 0.007 384 9 | 992.18 | 0.051 242 | 167.53 | 2573.5 | 2406.0 | 0.572 40 | 8.2555 | 7.6831 | 1.007 89 | 19 515. |
| 41 | 0.007 787 8 | 991.79 | 0.053 871 | 171.71 | 2575.3 | 2403.6 | 0.585 73 | 8.2368 | 7.6511 | 1.008 28 | 18 563. |
| 42 | 0.008 209 6 | 991.40 | 0.056 614 | 175.89 | 2577.1 | 2401.2 | 0.599 01 | 8.2182 | 7.6192 | 1.008 68 | 17 664. |
| 43 | 0.008 650 8 | 991.00 | 0.059 474 | 180.07 | 2578.9 | 2398.8 | 0.612 25 | 8.1998 | 7.5875 | 1.009 09 | 16 814. |
| 44 | 0.009 112 4 | 990.59 | 0.062 457 | 184.25 | 2580.6 | 2396.4 | 0.625 45 | 8.1815 | 7.5560 | 1.009 50 | 16 011. |
| 45 | 0.009 595 0 | 990.17 | 0.065 565 | 188.43 | 2582.4 | 2394.0 | 0.638 61 | 8.1633 | 7.5247 | 1.009 92 | 15 252. |
| 46 | 0.010 099 | 989.75 | 0.068 803 | 192.62 | 2584.2 | 2391.6 | 0.651 73 | 8.1453 | 7.4936 | 1.010 36 | 14 534. |
| 47 | 0.010 627 | 989.32 | 0.072 176 | 196.80 | 2586.0 | 2389.2 | 0.664 81 | 8.1275 | 7.4627 | 1.010 79 | 13 855. |
| 48 | 0.011 177 | 988.89 | 0.075 688 | 200.98 | 2587.8 | 2386.8 | 0.677 85 | 8.1098 | 7.4320 | 1.011 24 | 13 212. |
| 49 | 0.011 752 | 988.44 | 0.079 343 | 205.16 | 2589.5 | 2384.4 | 0.690 85 | 8.0922 | 7.4014 | 1.011 69 | 12 603. |
| 50 | 0.012 352 | 988.00 | 0.083 147 | 209.34 | 2591.3 | 2381.9 | 0.703 81 | 8.0748 | 7.3710 | 1.012 15 | 12 027. |
| 51 | 0.012 978 | 987.54 | 0.087 103 | 213.52 | 2593.1 | 2379.5 | 0.716 73 | 8.0576 | 7.3408 | 1.012 62 | 11 481. |
| 52 | 0.013 631 | 987.08 | 0.091 217 | 217.71 | 2594.8 | 2377.1 | 0.729 61 | 8.0404 | 7.3108 | 1.013 09 | 10 963. |
| 53 | 0.014 312 | 986.61 | 0.095 494 | 221.89 | 2596.6 | 2374.7 | 0.742 45 | 8.0234 | 7.2810 | 1.013 57 | 10 472. |
| 54 | 0.015 022 | 986.14 | 0.099 938 | 226.07 | 2598.3 | 2372.3 | 0.755 26 | 8.0066 | 7.2513 | 1.014 06 | 10 006. |

Table 1. Saturation (Temperature) (continued)

| $t, ^\circ\text{C}$ | p, MPa | Density, kg/m^3 | | Enthalpy, kJ/kg | | | Entropy, $\text{kJ/(kg}\cdot\text{K)}$ | | | Volume, cm^3/g | |
|---------------------|-----------------|--------------------------|----------|--------------------------|--------|------------|--|--------|------------|--------------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 55 | 0.015 762 | 985.66 | 0.104 56 | 230.26 | 2600.1 | 2369.8 | 0.768 02 | 7.9898 | 7.2218 | 1.014 55 | 9564.3 |
| 56 | 0.016 533 | 985.17 | 0.109 35 | 234.44 | 2601.8 | 2367.4 | 0.780 75 | 7.9732 | 7.1925 | 1.015 05 | 9144.8 |
| 57 | 0.017 336 | 984.68 | 0.114 33 | 238.62 | 2603.6 | 2365.0 | 0.793 44 | 7.9568 | 7.1633 | 1.015 56 | 8746.6 |
| 58 | 0.018 171 | 984.18 | 0.119 50 | 242.81 | 2605.3 | 2362.5 | 0.806 10 | 7.9404 | 7.1343 | 1.016 08 | 8368.3 |
| 59 | 0.019 041 | 983.67 | 0.124 86 | 246.99 | 2607.1 | 2360.1 | 0.818 71 | 7.9242 | 7.1055 | 1.016 60 | 8008.9 |
| 60 | 0.019 946 | 983.16 | 0.130 43 | 251.18 | 2608.8 | 2357.7 | 0.831 29 | 7.9081 | 7.0769 | 1.017 13 | 7667.2 |
| 61 | 0.020 888 | 982.64 | 0.136 20 | 255.37 | 2610.6 | 2355.2 | 0.843 84 | 7.8922 | 7.0484 | 1.017 66 | 7342.4 |
| 62 | 0.021 867 | 982.12 | 0.142 18 | 259.55 | 2612.3 | 2352.8 | 0.856 34 | 7.8764 | 7.0200 | 1.018 21 | 7033.5 |
| 63 | 0.022 885 | 981.59 | 0.148 38 | 263.74 | 2614.0 | 2350.3 | 0.868 82 | 7.8607 | 6.9918 | 1.018 75 | 6739.6 |
| 64 | 0.023 943 | 981.06 | 0.154 80 | 267.93 | 2615.8 | 2347.8 | 0.881 25 | 7.8451 | 6.9638 | 1.019 31 | 6459.8 |
| 65 | 0.025 042 | 980.52 | 0.161 46 | 272.12 | 2617.5 | 2345.4 | 0.893 65 | 7.8296 | 6.9359 | 1.019 87 | 6193.5 |
| 66 | 0.026 183 | 979.97 | 0.168 35 | 276.30 | 2619.2 | 2342.9 | 0.906 02 | 7.8142 | 6.9082 | 1.020 44 | 5939.9 |
| 67 | 0.027 368 | 979.42 | 0.175 49 | 280.49 | 2621.0 | 2340.5 | 0.918 35 | 7.7990 | 6.8807 | 1.021 01 | 5698.4 |
| 68 | 0.028 599 | 978.86 | 0.182 88 | 284.68 | 2622.7 | 2338.0 | 0.930 64 | 7.7839 | 6.8532 | 1.021 59 | 5468.2 |
| 69 | 0.029 876 | 978.30 | 0.190 52 | 288.87 | 2624.4 | 2335.5 | 0.942 91 | 7.7689 | 6.8260 | 1.022 18 | 5248.8 |
| 70 | 0.031 201 | 977.73 | 0.198 43 | 293.07 | 2626.1 | 2333.0 | 0.955 13 | 7.7540 | 6.7989 | 1.022 77 | 5039.5 |
| 71 | 0.032 575 | 977.16 | 0.206 61 | 297.26 | 2627.8 | 2330.5 | 0.967 33 | 7.7392 | 6.7719 | 1.023 37 | 4840.0 |
| 72 | 0.034 000 | 976.58 | 0.215 07 | 301.45 | 2629.5 | 2328.1 | 0.979 49 | 7.7246 | 6.7451 | 1.023 98 | 4649.6 |
| 73 | 0.035 478 | 976.00 | 0.223 82 | 305.64 | 2631.2 | 2325.6 | 0.991 61 | 7.7100 | 6.7184 | 1.024 59 | 4468.0 |
| 74 | 0.037 009 | 975.41 | 0.232 85 | 309.84 | 2632.9 | 2323.1 | 1.0037 | 7.6955 | 6.6918 | 1.025 21 | 4294.5 |
| 75 | 0.038 595 | 974.81 | 0.242 19 | 314.03 | 2634.6 | 2320.6 | 1.0158 | 7.6812 | 6.6654 | 1.025 84 | 4128.9 |
| 76 | 0.040 239 | 974.22 | 0.251 84 | 318.22 | 2636.3 | 2318.1 | 1.0278 | 7.6670 | 6.6392 | 1.026 47 | 3970.8 |
| 77 | 0.041 941 | 973.61 | 0.261 80 | 322.42 | 2638.0 | 2315.6 | 1.0398 | 7.6528 | 6.6130 | 1.027 10 | 3819.7 |
| 78 | 0.043 703 | 973.00 | 0.272 09 | 326.62 | 2639.7 | 2313.0 | 1.0517 | 7.6388 | 6.5871 | 1.027 75 | 3675.2 |
| 79 | 0.045 527 | 972.39 | 0.282 71 | 330.81 | 2641.3 | 2310.5 | 1.0637 | 7.6249 | 6.5612 | 1.028 40 | 3537.2 |
| 80 | 0.047 414 | 971.77 | 0.293 67 | 335.01 | 2643.0 | 2308.0 | 1.0756 | 7.6111 | 6.5355 | 1.029 05 | 3405.2 |
| 81 | 0.049 367 | 971.14 | 0.304 98 | 339.21 | 2644.7 | 2305.5 | 1.0874 | 7.5973 | 6.5099 | 1.029 72 | 3278.9 |
| 82 | 0.051 387 | 970.51 | 0.316 65 | 343.41 | 2646.4 | 2302.9 | 1.0993 | 7.5837 | 6.4844 | 1.030 38 | 3158.1 |
| 83 | 0.053 476 | 969.88 | 0.328 68 | 347.61 | 2648.0 | 2300.4 | 1.1111 | 7.5702 | 6.4591 | 1.031 06 | 3042.5 |
| 84 | 0.055 635 | 969.24 | 0.341 09 | 351.81 | 2649.7 | 2297.9 | 1.1229 | 7.5567 | 6.4339 | 1.031 74 | 2931.8 |
| 85 | 0.057 867 | 968.59 | 0.353 88 | 356.01 | 2651.3 | 2295.3 | 1.1346 | 7.5434 | 6.4088 | 1.032 43 | 2825.8 |
| 86 | 0.060 173 | 967.94 | 0.367 06 | 360.22 | 2653.0 | 2292.8 | 1.1463 | 7.5302 | 6.3838 | 1.033 12 | 2724.4 |
| 87 | 0.062 556 | 967.29 | 0.380 64 | 364.42 | 2654.6 | 2290.2 | 1.1580 | 7.5170 | 6.3590 | 1.033 82 | 2627.1 |
| 88 | 0.065 017 | 966.63 | 0.394 64 | 368.63 | 2656.3 | 2287.6 | 1.1696 | 7.5040 | 6.3343 | 1.034 52 | 2534.0 |
| 89 | 0.067 558 | 965.96 | 0.409 05 | 372.83 | 2657.9 | 2285.1 | 1.1813 | 7.4910 | 6.3097 | 1.035 24 | 2444.7 |
| 90 | 0.070 182 | 965.30 | 0.423 90 | 377.04 | 2659.5 | 2282.5 | 1.1929 | 7.4781 | 6.2853 | 1.035 95 | 2359.1 |
| 91 | 0.072 890 | 964.62 | 0.439 18 | 381.25 | 2661.2 | 2279.9 | 1.2044 | 7.4653 | 6.2609 | 1.036 68 | 2277.0 |
| 92 | 0.075 684 | 963.94 | 0.454 91 | 385.46 | 2662.8 | 2277.3 | 1.2160 | 7.4526 | 6.2367 | 1.037 41 | 2198.2 |
| 93 | 0.078 568 | 963.26 | 0.471 11 | 389.67 | 2664.4 | 2274.7 | 1.2275 | 7.4400 | 6.2126 | 1.038 14 | 2122.7 |
| 94 | 0.081 541 | 962.57 | 0.487 77 | 393.88 | 2666.0 | 2272.1 | 1.2389 | 7.4275 | 6.1886 | 1.038 88 | 2050.2 |
| 95 | 0.084 608 | 961.88 | 0.504 91 | 398.09 | 2667.6 | 2269.5 | 1.2504 | 7.4151 | 6.1647 | 1.039 63 | 1980.6 |
| 96 | 0.087 771 | 961.18 | 0.522 54 | 402.30 | 2669.2 | 2266.9 | 1.2618 | 7.4027 | 6.1409 | 1.040 38 | 1913.7 |
| 97 | 0.091 030 | 960.48 | 0.540 67 | 406.52 | 2670.8 | 2264.3 | 1.2732 | 7.3904 | 6.1172 | 1.041 14 | 1849.6 |
| 98 | 0.094 390 | 959.78 | 0.559 31 | 410.73 | 2672.4 | 2261.7 | 1.2846 | 7.3783 | 6.0937 | 1.041 91 | 1787.9 |
| 99 | 0.097 852 | 959.06 | 0.578 47 | 414.95 | 2674.0 | 2259.0 | 1.2959 | 7.3661 | 6.0702 | 1.042 68 | 1728.7 |
| 100 | 0.101 42 | 958.35 | 0.598 17 | 419.17 | 2675.6 | 2256.4 | 1.3072 | 7.3541 | 6.0469 | 1.043 46 | 1671.8 |
| 101 | 0.105 09 | 957.63 | 0.618 41 | 423.39 | 2677.1 | 2253.8 | 1.3185 | 7.3422 | 6.0237 | 1.044 25 | 1617.1 |
| 102 | 0.108 87 | 956.90 | 0.639 20 | 427.61 | 2678.7 | 2251.1 | 1.3297 | 7.3303 | 6.0006 | 1.045 04 | 1564.4 |
| 103 | 0.112 77 | 956.18 | 0.660 56 | 431.83 | 2680.3 | 2248.5 | 1.3410 | 7.3185 | 5.9775 | 1.045 83 | 1513.9 |
| 104 | 0.116 78 | 955.44 | 0.682 50 | 436.05 | 2681.8 | 2245.8 | 1.3522 | 7.3068 | 5.9546 | 1.046 64 | 1465.2 |
| 105 | 0.120 90 | 954.70 | 0.705 03 | 440.27 | 2683.4 | 2243.1 | 1.3633 | 7.2952 | 5.9318 | 1.047 44 | 1418.4 |
| 106 | 0.125 15 | 953.96 | 0.728 16 | 444.50 | 2684.9 | 2240.4 | 1.3745 | 7.2836 | 5.9091 | 1.048 26 | 1373.3 |
| 107 | 0.129 52 | 953.22 | 0.751 90 | 448.73 | 2686.5 | 2237.7 | 1.3856 | 7.2721 | 5.8865 | 1.049 08 | 1330.0 |
| 108 | 0.134 01 | 952.46 | 0.776 27 | 452.95 | 2688.0 | 2235.1 | 1.3967 | 7.2607 | 5.8640 | 1.049 91 | 1288.2 |
| 109 | 0.138 63 | 951.71 | 0.801 27 | 457.18 | 2689.5 | 2232.4 | 1.4078 | 7.2493 | 5.8416 | 1.050 74 | 1248.0 |

Table 1. Saturation (Temperature) (continued)

| t , °C | p , MPa | Density, kg/m ³ | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg·K) | | | Volume, cm ³ /g | |
|----------|-----------|----------------------------|----------|-----------------|--------|------------|--------------------|--------|------------|----------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 110 | 0.143 38 | 950.95 | 0.826 93 | 461.42 | 2691.1 | 2229.6 | 1.4188 | 7.2381 | 5.8193 | 1.051 58 | 1209.3 |
| 111 | 0.148 26 | 950.18 | 0.853 25 | 465.65 | 2692.6 | 2226.9 | 1.4298 | 7.2269 | 5.7970 | 1.052 43 | 1172.0 |
| 112 | 0.153 28 | 949.41 | 0.880 24 | 469.88 | 2694.1 | 2224.2 | 1.4408 | 7.2157 | 5.7749 | 1.053 28 | 1136.1 |
| 113 | 0.158 44 | 948.64 | 0.907 92 | 474.12 | 2695.6 | 2221.5 | 1.4518 | 7.2047 | 5.7529 | 1.054 14 | 1101.4 |
| 114 | 0.163 74 | 947.86 | 0.936 30 | 478.35 | 2697.1 | 2218.7 | 1.4628 | 7.1937 | 5.7309 | 1.055 00 | 1068.0 |
| 115 | 0.169 18 | 947.08 | 0.965 40 | 482.59 | 2698.6 | 2216.0 | 1.4737 | 7.1828 | 5.7091 | 1.055 88 | 1035.8 |
| 116 | 0.174 77 | 946.30 | 0.995 22 | 486.83 | 2700.1 | 2213.2 | 1.4846 | 7.1719 | 5.6873 | 1.056 75 | 1004.8 |
| 117 | 0.180 52 | 945.50 | 1.0258 | 491.08 | 2701.5 | 2210.5 | 1.4954 | 7.1611 | 5.6657 | 1.057 64 | 974.86 |
| 118 | 0.186 41 | 944.71 | 1.0571 | 495.32 | 2703.0 | 2207.7 | 1.5063 | 7.1504 | 5.6441 | 1.058 53 | 945.98 |
| 119 | 0.192 46 | 943.91 | 1.0892 | 499.56 | 2704.5 | 2204.9 | 1.5171 | 7.1397 | 5.6226 | 1.059 42 | 918.11 |
| 120 | 0.198 67 | 943.11 | 1.1221 | 503.81 | 2705.9 | 2202.1 | 1.5279 | 7.1291 | 5.6012 | 1.060 33 | 891.21 |
| 121 | 0.205 05 | 942.30 | 1.1557 | 508.06 | 2707.4 | 2199.3 | 1.5387 | 7.1186 | 5.5799 | 1.061 23 | 865.25 |
| 122 | 0.211 59 | 941.49 | 1.1902 | 512.31 | 2708.8 | 2196.5 | 1.5494 | 7.1081 | 5.5587 | 1.062 15 | 840.19 |
| 123 | 0.218 30 | 940.67 | 1.2255 | 516.56 | 2710.3 | 2193.7 | 1.5602 | 7.0977 | 5.5375 | 1.063 07 | 815.98 |
| 124 | 0.225 18 | 939.85 | 1.2617 | 520.82 | 2711.7 | 2190.9 | 1.5709 | 7.0873 | 5.5165 | 1.064 00 | 792.61 |
| 125 | 0.232 24 | 939.02 | 1.2987 | 525.07 | 2713.1 | 2188.0 | 1.5816 | 7.0770 | 5.4955 | 1.064 94 | 770.03 |
| 126 | 0.239 47 | 938.19 | 1.3365 | 529.33 | 2714.5 | 2185.2 | 1.5922 | 7.0668 | 5.4746 | 1.065 88 | 748.21 |
| 127 | 0.246 89 | 937.36 | 1.3753 | 533.59 | 2715.9 | 2182.3 | 1.6029 | 7.0566 | 5.4538 | 1.066 83 | 727.13 |
| 128 | 0.254 50 | 936.52 | 1.4149 | 537.85 | 2717.3 | 2179.5 | 1.6135 | 7.0465 | 5.4330 | 1.067 78 | 706.75 |
| 129 | 0.262 29 | 935.68 | 1.4555 | 542.12 | 2718.7 | 2176.6 | 1.6241 | 7.0364 | 5.4124 | 1.068 74 | 687.05 |
| 130 | 0.270 28 | 934.83 | 1.4970 | 546.38 | 2720.1 | 2173.7 | 1.6346 | 7.0264 | 5.3918 | 1.069 71 | 668.00 |
| 131 | 0.278 46 | 933.98 | 1.5394 | 550.65 | 2721.5 | 2170.8 | 1.6452 | 7.0165 | 5.3713 | 1.070 68 | 649.59 |
| 132 | 0.286 85 | 933.13 | 1.5828 | 554.92 | 2722.8 | 2167.9 | 1.6557 | 7.0066 | 5.3509 | 1.071 66 | 631.77 |
| 133 | 0.295 43 | 932.27 | 1.6272 | 559.19 | 2724.2 | 2165.0 | 1.6662 | 6.9967 | 5.3305 | 1.072 65 | 614.54 |
| 134 | 0.304 23 | 931.41 | 1.6726 | 563.47 | 2725.5 | 2162.1 | 1.6767 | 6.9869 | 5.3102 | 1.073 65 | 597.86 |
| 135 | 0.313 23 | 930.54 | 1.7190 | 567.74 | 2726.9 | 2159.1 | 1.6872 | 6.9772 | 5.2900 | 1.074 65 | 581.73 |
| 136 | 0.322 45 | 929.67 | 1.7664 | 572.02 | 2728.2 | 2156.2 | 1.6976 | 6.9675 | 5.2699 | 1.075 66 | 566.11 |
| 137 | 0.331 88 | 928.79 | 1.8149 | 576.30 | 2729.5 | 2153.2 | 1.7081 | 6.9579 | 5.2498 | 1.076 67 | 550.99 |
| 138 | 0.341 54 | 927.91 | 1.8644 | 580.59 | 2730.8 | 2150.3 | 1.7185 | 6.9483 | 5.2298 | 1.077 69 | 536.36 |
| 139 | 0.351 43 | 927.02 | 1.9150 | 584.87 | 2732.1 | 2147.3 | 1.7289 | 6.9388 | 5.2099 | 1.078 72 | 522.18 |
| 140 | 0.361 54 | 926.13 | 1.9667 | 589.16 | 2733.4 | 2144.3 | 1.7392 | 6.9293 | 5.1901 | 1.079 76 | 508.45 |
| 141 | 0.371 89 | 925.24 | 2.0196 | 593.45 | 2734.7 | 2141.3 | 1.7496 | 6.9199 | 5.1703 | 1.080 80 | 495.16 |
| 142 | 0.382 47 | 924.34 | 2.0735 | 597.74 | 2736.0 | 2138.3 | 1.7599 | 6.9105 | 5.1506 | 1.081 85 | 482.27 |
| 143 | 0.393 29 | 923.44 | 2.1286 | 602.04 | 2737.3 | 2135.2 | 1.7702 | 6.9011 | 5.1309 | 1.082 91 | 469.79 |
| 144 | 0.404 37 | 922.54 | 2.1849 | 606.34 | 2738.5 | 2132.2 | 1.7805 | 6.8919 | 5.1114 | 1.083 97 | 457.69 |
| 145 | 0.415 68 | 921.62 | 2.2423 | 610.64 | 2739.8 | 2129.2 | 1.7907 | 6.8826 | 5.0919 | 1.085 04 | 445.96 |
| 146 | 0.427 26 | 920.71 | 2.3010 | 614.94 | 2741.0 | 2126.1 | 1.8010 | 6.8734 | 5.0724 | 1.086 12 | 434.59 |
| 147 | 0.439 09 | 919.79 | 2.3609 | 619.25 | 2742.3 | 2123.0 | 1.8112 | 6.8643 | 5.0530 | 1.087 20 | 423.57 |
| 148 | 0.451 18 | 918.87 | 2.4220 | 623.56 | 2743.5 | 2119.9 | 1.8214 | 6.8552 | 5.0337 | 1.088 30 | 412.88 |
| 149 | 0.463 54 | 917.94 | 2.4844 | 627.87 | 2744.7 | 2116.9 | 1.8316 | 6.8461 | 5.0145 | 1.089 40 | 402.51 |
| 150 | 0.476 16 | 917.01 | 2.5481 | 632.18 | 2745.9 | 2113.7 | 1.8418 | 6.8371 | 4.9953 | 1.090 50 | 392.45 |
| 151 | 0.489 07 | 916.07 | 2.6130 | 636.50 | 2747.1 | 2110.6 | 1.8520 | 6.8281 | 4.9761 | 1.091 62 | 382.69 |
| 152 | 0.502 25 | 915.13 | 2.6793 | 640.81 | 2748.3 | 2107.5 | 1.8621 | 6.8192 | 4.9571 | 1.092 74 | 373.23 |
| 153 | 0.515 71 | 914.19 | 2.7470 | 645.14 | 2749.5 | 2104.3 | 1.8722 | 6.8103 | 4.9380 | 1.093 87 | 364.04 |
| 154 | 0.529 46 | 913.24 | 2.8160 | 649.46 | 2750.7 | 2101.2 | 1.8823 | 6.8014 | 4.9191 | 1.095 01 | 355.12 |
| 155 | 0.543 50 | 912.28 | 2.8863 | 653.79 | 2751.8 | 2098.0 | 1.8924 | 6.7926 | 4.9002 | 1.096 15 | 346.46 |
| 156 | 0.557 84 | 911.33 | 2.9581 | 658.12 | 2753.0 | 2094.8 | 1.9025 | 6.7838 | 4.8814 | 1.097 30 | 338.05 |
| 157 | 0.572 47 | 910.36 | 3.0313 | 662.45 | 2754.1 | 2091.6 | 1.9125 | 6.7751 | 4.8626 | 1.098 46 | 329.89 |
| 158 | 0.587 42 | 909.40 | 3.1059 | 666.79 | 2755.2 | 2088.4 | 1.9225 | 6.7664 | 4.8439 | 1.099 63 | 321.96 |
| 159 | 0.602 67 | 908.42 | 3.1821 | 671.13 | 2756.3 | 2085.2 | 1.9326 | 6.7578 | 4.8252 | 1.100 81 | 314.26 |
| 160 | 0.618 23 | 907.45 | 3.2596 | 675.47 | 2757.4 | 2082.0 | 1.9426 | 6.7491 | 4.8066 | 1.101 99 | 306.78 |
| 161 | 0.634 12 | 906.47 | 3.3387 | 679.82 | 2758.5 | 2078.7 | 1.9525 | 6.7406 | 4.7880 | 1.103 18 | 299.51 |
| 162 | 0.650 33 | 905.49 | 3.4194 | 684.17 | 2759.6 | 2075.5 | 1.9625 | 6.7320 | 4.7695 | 1.104 38 | 292.45 |
| 163 | 0.666 86 | 904.50 | 3.5016 | 688.52 | 2760.7 | 2072.2 | 1.9725 | 6.7235 | 4.7511 | 1.105 59 | 285.59 |
| 164 | 0.683 73 | 903.50 | 3.5853 | 692.88 | 2761.8 | 2068.9 | 1.9824 | 6.7150 | 4.7327 | 1.106 80 | 278.92 |

Table 1. Saturation (Temperature) (continued)

| $t, ^\circ\text{C}$ | p, MPa | Density, kg/m^3 | | Enthalpy, kJ/kg | | | Entropy, $\text{kJ/(kg}\cdot\text{K)}$ | | | Volume, cm^3/g | |
|---------------------|-----------------|--------------------------|----------|--------------------------|--------|------------|--|--------|------------|--------------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 165 | 0.700 93 | 902.51 | 3.6707 | 697.24 | 2762.8 | 2065.6 | 1.9923 | 6.7066 | 4.7143 | 1.108 03 | 272.43 |
| 166 | 0.718 48 | 901.50 | 3.7576 | 701.60 | 2763.9 | 2062.3 | 2.0022 | 6.6982 | 4.6960 | 1.109 26 | 266.12 |
| 167 | 0.736 38 | 900.50 | 3.8462 | 705.96 | 2764.9 | 2058.9 | 2.0121 | 6.6898 | 4.6778 | 1.110 50 | 259.99 |
| 168 | 0.754 62 | 899.49 | 3.9365 | 710.33 | 2765.9 | 2055.6 | 2.0220 | 6.6815 | 4.6596 | 1.111 75 | 254.03 |
| 169 | 0.773 22 | 898.47 | 4.0285 | 714.71 | 2766.9 | 2052.2 | 2.0318 | 6.6732 | 4.6414 | 1.113 00 | 248.23 |
| 170 | 0.792 19 | 897.45 | 4.1222 | 719.08 | 2767.9 | 2048.8 | 2.0417 | 6.6650 | 4.6233 | 1.114 27 | 242.59 |
| 171 | 0.811 52 | 896.43 | 4.2176 | 723.46 | 2768.9 | 2045.4 | 2.0515 | 6.6567 | 4.6053 | 1.115 54 | 237.10 |
| 172 | 0.831 22 | 895.40 | 4.3148 | 727.85 | 2769.9 | 2042.0 | 2.0613 | 6.6485 | 4.5872 | 1.116 82 | 231.76 |
| 173 | 0.851 30 | 894.36 | 4.4138 | 732.23 | 2770.8 | 2038.6 | 2.0711 | 6.6404 | 4.5693 | 1.118 11 | 226.56 |
| 174 | 0.871 76 | 893.33 | 4.5146 | 736.63 | 2771.8 | 2035.1 | 2.0809 | 6.6322 | 4.5514 | 1.119 41 | 221.50 |
| 175 | 0.892 60 | 892.28 | 4.6172 | 741.02 | 2772.7 | 2031.7 | 2.0906 | 6.6241 | 4.5335 | 1.120 72 | 216.58 |
| 176 | 0.913 84 | 891.24 | 4.7217 | 745.42 | 2773.6 | 2028.2 | 2.1004 | 6.6161 | 4.5157 | 1.122 04 | 211.79 |
| 177 | 0.935 47 | 890.18 | 4.8281 | 749.82 | 2774.5 | 2024.7 | 2.1101 | 6.6080 | 4.4979 | 1.123 36 | 207.12 |
| 178 | 0.957 51 | 889.13 | 4.9364 | 754.23 | 2775.4 | 2021.2 | 2.1198 | 6.6000 | 4.4802 | 1.124 70 | 202.58 |
| 179 | 0.979 95 | 888.07 | 5.0466 | 758.64 | 2776.3 | 2017.7 | 2.1296 | 6.5920 | 4.4625 | 1.126 04 | 198.15 |
| 180 | 1.0028 | 887.00 | 5.1588 | 763.05 | 2777.2 | 2014.2 | 2.1392 | 6.5840 | 4.4448 | 1.127 40 | 193.84 |
| 181 | 1.0261 | 885.93 | 5.2730 | 767.47 | 2778.1 | 2010.6 | 2.1489 | 6.5761 | 4.4272 | 1.128 76 | 189.64 |
| 182 | 1.0498 | 884.85 | 5.3893 | 771.90 | 2778.9 | 2007.0 | 2.1586 | 6.5682 | 4.4096 | 1.130 13 | 185.55 |
| 183 | 1.0739 | 883.77 | 5.5076 | 776.32 | 2779.8 | 2003.4 | 2.1683 | 6.5603 | 4.3921 | 1.131 51 | 181.57 |
| 184 | 1.0985 | 882.69 | 5.6279 | 780.75 | 2780.6 | 1999.8 | 2.1779 | 6.5525 | 4.3746 | 1.132 90 | 177.69 |
| 185 | 1.1235 | 881.60 | 5.7504 | 785.19 | 2781.4 | 1996.2 | 2.1875 | 6.5447 | 4.3571 | 1.134 30 | 173.90 |
| 186 | 1.1489 | 880.50 | 5.8750 | 789.63 | 2782.2 | 1992.6 | 2.1971 | 6.5369 | 4.3397 | 1.135 71 | 170.21 |
| 187 | 1.1748 | 879.40 | 6.0018 | 794.07 | 2783.0 | 1988.9 | 2.2067 | 6.5291 | 4.3223 | 1.137 13 | 166.62 |
| 188 | 1.2011 | 878.30 | 6.1308 | 798.52 | 2783.8 | 1985.3 | 2.2163 | 6.5213 | 4.3050 | 1.138 56 | 163.11 |
| 189 | 1.2280 | 877.19 | 6.2620 | 802.97 | 2784.5 | 1981.6 | 2.2259 | 6.5136 | 4.2877 | 1.140 00 | 159.69 |
| 190 | 1.2552 | 876.08 | 6.3954 | 807.43 | 2785.3 | 1977.9 | 2.2355 | 6.5059 | 4.2704 | 1.141 45 | 156.36 |
| 191 | 1.2830 | 874.96 | 6.5312 | 811.89 | 2786.0 | 1974.1 | 2.2450 | 6.4982 | 4.2532 | 1.142 91 | 153.11 |
| 192 | 1.3112 | 873.83 | 6.6692 | 816.36 | 2786.7 | 1970.4 | 2.2546 | 6.4906 | 4.2360 | 1.144 38 | 149.94 |
| 193 | 1.3399 | 872.70 | 6.8096 | 820.83 | 2787.4 | 1966.6 | 2.2641 | 6.4830 | 4.2188 | 1.145 86 | 146.85 |
| 194 | 1.3691 | 871.57 | 6.9524 | 825.31 | 2788.1 | 1962.8 | 2.2736 | 6.4754 | 4.2017 | 1.147 36 | 143.83 |
| 195 | 1.3988 | 870.43 | 7.0976 | 829.79 | 2788.8 | 1959.0 | 2.2832 | 6.4678 | 4.1846 | 1.148 86 | 140.89 |
| 196 | 1.4290 | 869.29 | 7.2453 | 834.28 | 2789.5 | 1955.2 | 2.2926 | 6.4602 | 4.1676 | 1.150 37 | 138.02 |
| 197 | 1.4597 | 868.14 | 7.3954 | 838.77 | 2790.1 | 1951.4 | 2.3021 | 6.4527 | 4.1505 | 1.151 89 | 135.22 |
| 198 | 1.4909 | 866.98 | 7.5480 | 843.26 | 2790.8 | 1947.5 | 2.3116 | 6.4451 | 4.1335 | 1.153 43 | 132.48 |
| 199 | 1.5227 | 865.82 | 7.7032 | 847.76 | 2791.4 | 1943.6 | 2.3211 | 6.4376 | 4.1166 | 1.154 97 | 129.82 |
| 200 | 1.5549 | 864.66 | 7.8610 | 852.27 | 2792.0 | 1939.7 | 2.3305 | 6.4302 | 4.0996 | 1.156 53 | 127.21 |
| 201 | 1.5877 | 863.49 | 8.0214 | 856.78 | 2792.6 | 1935.8 | 2.3400 | 6.4227 | 4.0827 | 1.158 09 | 124.67 |
| 202 | 1.6210 | 862.31 | 8.1844 | 861.30 | 2793.2 | 1931.9 | 2.3494 | 6.4152 | 4.0658 | 1.159 67 | 122.18 |
| 203 | 1.6549 | 861.13 | 8.3501 | 865.82 | 2793.7 | 1927.9 | 2.3588 | 6.4078 | 4.0490 | 1.161 26 | 119.76 |
| 204 | 1.6893 | 859.95 | 8.5186 | 870.35 | 2794.3 | 1923.9 | 2.3683 | 6.4004 | 4.0322 | 1.162 86 | 117.39 |
| 205 | 1.7243 | 858.76 | 8.6898 | 874.88 | 2794.8 | 1919.9 | 2.3777 | 6.3930 | 4.0154 | 1.164 48 | 115.08 |
| 206 | 1.7598 | 857.56 | 8.8638 | 879.42 | 2795.3 | 1915.9 | 2.3871 | 6.3856 | 3.9986 | 1.166 10 | 112.82 |
| 207 | 1.7959 | 856.36 | 9.0406 | 883.96 | 2795.9 | 1911.9 | 2.3964 | 6.3783 | 3.9819 | 1.167 74 | 110.61 |
| 208 | 1.8326 | 855.15 | 9.2203 | 888.51 | 2796.3 | 1907.8 | 2.4058 | 6.3710 | 3.9651 | 1.169 39 | 108.46 |
| 209 | 1.8698 | 853.94 | 9.4029 | 893.07 | 2796.8 | 1903.7 | 2.4152 | 6.3636 | 3.9484 | 1.171 05 | 106.35 |
| 210 | 1.9077 | 852.72 | 9.5885 | 897.63 | 2797.3 | 1899.6 | 2.4245 | 6.3563 | 3.9318 | 1.172 72 | 104.29 |
| 211 | 1.9461 | 851.49 | 9.7770 | 902.20 | 2797.7 | 1895.5 | 2.4339 | 6.3490 | 3.9151 | 1.174 41 | 102.28 |
| 212 | 1.9851 | 850.26 | 9.9686 | 906.77 | 2798.1 | 1891.4 | 2.4432 | 6.3417 | 3.8985 | 1.176 11 | 100.31 |
| 213 | 2.0247 | 849.03 | 10.163 | 911.35 | 2798.5 | 1887.2 | 2.4526 | 6.3345 | 3.8819 | 1.177 82 | 98.394 |
| 214 | 2.0650 | 847.79 | 10.361 | 915.94 | 2798.9 | 1883.0 | 2.4619 | 6.3272 | 3.8653 | 1.179 54 | 96.516 |
| 215 | 2.1058 | 846.54 | 10.562 | 920.53 | 2799.3 | 1878.8 | 2.4712 | 6.3200 | 3.8488 | 1.181 28 | 94.679 |
| 216 | 2.1473 | 845.29 | 10.766 | 925.12 | 2799.7 | 1874.6 | 2.4805 | 6.3128 | 3.8323 | 1.183 03 | 92.884 |
| 217 | 2.1894 | 844.03 | 10.973 | 929.73 | 2800.0 | 1870.3 | 2.4898 | 6.3056 | 3.8158 | 1.184 79 | 91.129 |
| 218 | 2.2322 | 842.77 | 11.184 | 934.34 | 2800.3 | 1866.0 | 2.4991 | 6.2984 | 3.7993 | 1.186 57 | 89.413 |
| 219 | 2.2756 | 841.50 | 11.398 | 938.96 | 2800.7 | 1861.7 | 2.5084 | 6.2912 | 3.7828 | 1.188 36 | 87.734 |

Table 1. Saturation (Temperature) (continued)

| t , °C | p , MPa | Density, kg/m ³ | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg·K) | | | Volume, cm ³ /g | |
|----------|-----------|----------------------------|----------|-----------------|--------|------------|--------------------|--------|------------|----------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 220 | 2.3196 | 840.22 | 11.615 | 943.58 | 2800.9 | 1857.4 | 2.5177 | 6.2840 | 3.7663 | 1.190 17 | 86.092 |
| 221 | 2.3643 | 838.94 | 11.836 | 948.21 | 2801.2 | 1853.0 | 2.5269 | 6.2768 | 3.7499 | 1.191 98 | 84.486 |
| 222 | 2.4096 | 837.65 | 12.060 | 952.85 | 2801.5 | 1848.6 | 2.5362 | 6.2697 | 3.7335 | 1.193 82 | 82.916 |
| 223 | 2.4556 | 836.35 | 12.288 | 957.49 | 2801.7 | 1844.2 | 2.5455 | 6.2625 | 3.7171 | 1.195 67 | 81.379 |
| 224 | 2.5023 | 835.05 | 12.520 | 962.14 | 2801.9 | 1839.8 | 2.5547 | 6.2554 | 3.7007 | 1.197 53 | 79.875 |
| 225 | 2.5497 | 833.75 | 12.755 | 966.80 | 2802.1 | 1835.4 | 2.5640 | 6.2483 | 3.6843 | 1.199 40 | 78.403 |
| 226 | 2.5978 | 832.43 | 12.993 | 971.46 | 2802.3 | 1830.9 | 2.5732 | 6.2412 | 3.6680 | 1.201 30 | 76.964 |
| 227 | 2.6466 | 831.12 | 13.235 | 976.13 | 2802.5 | 1826.4 | 2.5824 | 6.2341 | 3.6516 | 1.203 20 | 75.554 |
| 228 | 2.6960 | 829.79 | 13.482 | 980.81 | 2802.7 | 1821.8 | 2.5917 | 6.2270 | 3.6353 | 1.205 12 | 74.175 |
| 229 | 2.7462 | 828.46 | 13.732 | 985.50 | 2802.8 | 1817.3 | 2.6009 | 6.2199 | 3.6190 | 1.207 06 | 72.825 |
| 230 | 2.7971 | 827.12 | 13.985 | 990.19 | 2802.9 | 1812.7 | 2.6101 | 6.2128 | 3.6027 | 1.209 02 | 71.503 |
| 231 | 2.8487 | 825.77 | 14.243 | 994.89 | 2803.0 | 1808.1 | 2.6193 | 6.2057 | 3.5864 | 1.210 98 | 70.210 |
| 232 | 2.9010 | 824.42 | 14.505 | 999.60 | 2803.1 | 1803.5 | 2.6285 | 6.1987 | 3.5702 | 1.212 97 | 68.943 |
| 233 | 2.9541 | 823.06 | 14.771 | 1004.3 | 2803.1 | 1798.8 | 2.6377 | 6.1916 | 3.5539 | 1.214 97 | 67.702 |
| 234 | 3.0080 | 821.70 | 15.040 | 1009.0 | 2803.2 | 1794.1 | 2.6469 | 6.1845 | 3.5376 | 1.216 99 | 66.488 |
| 235 | 3.0625 | 820.33 | 15.314 | 1013.8 | 2803.2 | 1789.4 | 2.6561 | 6.1775 | 3.5214 | 1.219 02 | 65.298 |
| 236 | 3.1179 | 818.95 | 15.593 | 1018.5 | 2803.2 | 1784.7 | 2.6653 | 6.1704 | 3.5052 | 1.221 08 | 64.133 |
| 237 | 3.1740 | 817.56 | 15.875 | 1023.3 | 2803.1 | 1779.9 | 2.6745 | 6.1634 | 3.4890 | 1.223 15 | 62.991 |
| 238 | 3.2308 | 816.17 | 16.162 | 1028.0 | 2803.1 | 1775.1 | 2.6836 | 6.1564 | 3.4727 | 1.225 23 | 61.873 |
| 239 | 3.2885 | 814.77 | 16.453 | 1032.8 | 2803.0 | 1770.3 | 2.6928 | 6.1493 | 3.4565 | 1.227 34 | 60.778 |
| 240 | 3.3469 | 813.37 | 16.749 | 1037.6 | 2803.0 | 1765.4 | 2.7020 | 6.1423 | 3.4403 | 1.229 46 | 59.705 |
| 241 | 3.4062 | 811.95 | 17.049 | 1042.3 | 2802.9 | 1760.5 | 2.7111 | 6.1353 | 3.4241 | 1.231 60 | 58.654 |
| 242 | 3.4662 | 810.53 | 17.354 | 1047.1 | 2802.7 | 1755.6 | 2.7203 | 6.1282 | 3.4079 | 1.233 76 | 57.623 |
| 243 | 3.5270 | 809.10 | 17.664 | 1051.9 | 2802.6 | 1750.7 | 2.7295 | 6.1212 | 3.3918 | 1.235 94 | 56.613 |
| 244 | 3.5887 | 807.67 | 17.978 | 1056.7 | 2802.4 | 1745.7 | 2.7386 | 6.1142 | 3.3756 | 1.238 13 | 55.624 |
| 245 | 3.6512 | 806.22 | 18.297 | 1061.5 | 2802.2 | 1740.7 | 2.7478 | 6.1072 | 3.3594 | 1.240 35 | 54.654 |
| 246 | 3.7145 | 804.77 | 18.621 | 1066.4 | 2802.0 | 1735.6 | 2.7569 | 6.1002 | 3.3432 | 1.242 59 | 53.703 |
| 247 | 3.7786 | 803.32 | 18.950 | 1071.2 | 2801.8 | 1730.6 | 2.7661 | 6.0931 | 3.3270 | 1.244 84 | 52.771 |
| 248 | 3.8436 | 801.85 | 19.284 | 1076.1 | 2801.5 | 1725.5 | 2.7752 | 6.0861 | 3.3109 | 1.247 12 | 51.857 |
| 249 | 3.9095 | 800.38 | 19.623 | 1080.9 | 2801.2 | 1720.3 | 2.7844 | 6.0791 | 3.2947 | 1.249 41 | 50.961 |
| 250 | 3.9762 | 798.89 | 19.967 | 1085.8 | 2800.9 | 1715.2 | 2.7935 | 6.0721 | 3.2785 | 1.251 73 | 50.083 |
| 251 | 4.0438 | 797.40 | 20.316 | 1090.6 | 2800.6 | 1710.0 | 2.8027 | 6.0650 | 3.2624 | 1.254 07 | 49.222 |
| 252 | 4.1122 | 795.91 | 20.671 | 1095.5 | 2800.3 | 1704.7 | 2.8118 | 6.0580 | 3.2462 | 1.256 43 | 48.377 |
| 253 | 4.1815 | 794.40 | 21.031 | 1100.4 | 2799.9 | 1699.5 | 2.8210 | 6.0510 | 3.2300 | 1.258 81 | 47.548 |
| 254 | 4.2518 | 792.89 | 21.397 | 1105.3 | 2799.5 | 1694.2 | 2.8301 | 6.0439 | 3.2138 | 1.261 21 | 46.736 |
| 255 | 4.3229 | 791.37 | 21.768 | 1110.2 | 2799.1 | 1688.8 | 2.8392 | 6.0369 | 3.1977 | 1.263 64 | 45.938 |
| 256 | 4.3949 | 789.83 | 22.145 | 1115.2 | 2798.6 | 1683.5 | 2.8484 | 6.0298 | 3.1815 | 1.266 09 | 45.156 |
| 257 | 4.4679 | 788.30 | 22.528 | 1120.1 | 2798.2 | 1678.1 | 2.8575 | 6.0228 | 3.1653 | 1.268 56 | 44.389 |
| 258 | 4.5417 | 786.75 | 22.917 | 1125.0 | 2797.7 | 1672.6 | 2.8667 | 6.0157 | 3.1491 | 1.271 06 | 43.637 |
| 259 | 4.6165 | 785.19 | 23.311 | 1130.0 | 2797.1 | 1667.2 | 2.8758 | 6.0087 | 3.1329 | 1.273 58 | 42.898 |
| 260 | 4.6923 | 783.63 | 23.712 | 1135.0 | 2796.6 | 1661.6 | 2.8849 | 6.0016 | 3.1167 | 1.276 12 | 42.173 |
| 261 | 4.7689 | 782.05 | 24.118 | 1139.9 | 2796.0 | 1656.1 | 2.8941 | 5.9945 | 3.1004 | 1.278 69 | 41.462 |
| 262 | 4.8466 | 780.47 | 24.531 | 1144.9 | 2795.4 | 1650.5 | 2.9032 | 5.9874 | 3.0842 | 1.281 28 | 40.764 |
| 263 | 4.9252 | 778.88 | 24.951 | 1149.9 | 2794.8 | 1644.9 | 2.9124 | 5.9804 | 3.0680 | 1.283 90 | 40.079 |
| 264 | 5.0047 | 777.27 | 25.377 | 1154.9 | 2794.2 | 1639.2 | 2.9215 | 5.9732 | 3.0517 | 1.286 55 | 39.406 |
| 265 | 5.0853 | 775.66 | 25.809 | 1160.0 | 2793.5 | 1633.5 | 2.9307 | 5.9661 | 3.0354 | 1.289 22 | 38.746 |
| 266 | 5.1668 | 774.04 | 26.248 | 1165.0 | 2792.8 | 1627.8 | 2.9398 | 5.9590 | 3.0192 | 1.291 92 | 38.098 |
| 267 | 5.2494 | 772.41 | 26.694 | 1170.0 | 2792.1 | 1622.0 | 2.9490 | 5.9519 | 3.0029 | 1.294 65 | 37.462 |
| 268 | 5.3329 | 770.77 | 27.147 | 1175.1 | 2791.3 | 1616.2 | 2.9582 | 5.9447 | 2.9866 | 1.297 40 | 36.837 |
| 269 | 5.4174 | 769.12 | 27.606 | 1180.2 | 2790.5 | 1610.3 | 2.9673 | 5.9376 | 2.9703 | 1.300 19 | 36.223 |
| 270 | 5.5030 | 767.46 | 28.073 | 1185.3 | 2789.7 | 1604.4 | 2.9765 | 5.9304 | 2.9539 | 1.303 00 | 35.621 |
| 271 | 5.5896 | 765.79 | 28.548 | 1190.4 | 2788.8 | 1598.5 | 2.9857 | 5.9232 | 2.9376 | 1.305 84 | 35.029 |
| 272 | 5.6772 | 764.11 | 29.029 | 1195.5 | 2788.0 | 1592.5 | 2.9948 | 5.9160 | 2.9212 | 1.308 71 | 34.448 |
| 273 | 5.7659 | 762.42 | 29.518 | 1200.6 | 2787.1 | 1586.5 | 3.0040 | 5.9088 | 2.9048 | 1.311 61 | 33.877 |
| 274 | 5.8556 | 760.72 | 30.015 | 1205.7 | 2786.1 | 1580.4 | 3.0132 | 5.9016 | 2.8884 | 1.314 55 | 33.317 |

Table 1. Saturation (Temperature) (continued)

| <i>t</i> , °C | <i>p</i> , MPa | Density, kg/m ³ | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg·K) | | | Volume, cm ³ /g | |
|---------------|----------------|----------------------------|----------|-----------------|--------|------------|--------------------|--------|------------|----------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 275 | 5.9464 | 759.00 | 30.520 | 1210.9 | 2785.2 | 1574.3 | 3.0224 | 5.8944 | 2.8720 | 1.317 51 | 32.766 |
| 276 | 6.0383 | 757.28 | 31.032 | 1216.1 | 2784.2 | 1568.1 | 3.0316 | 5.8871 | 2.8555 | 1.320 51 | 32.225 |
| 277 | 6.1312 | 755.55 | 31.553 | 1221.3 | 2783.1 | 1561.9 | 3.0408 | 5.8798 | 2.8390 | 1.323 54 | 31.693 |
| 278 | 6.2252 | 753.80 | 32.082 | 1226.4 | 2782.1 | 1555.6 | 3.0500 | 5.8725 | 2.8225 | 1.326 61 | 31.171 |
| 279 | 6.3203 | 752.04 | 32.619 | 1231.7 | 2781.0 | 1549.3 | 3.0592 | 5.8652 | 2.8060 | 1.329 71 | 30.657 |
| 280 | 6.4166 | 750.28 | 33.165 | 1236.9 | 2779.9 | 1543.0 | 3.0685 | 5.8579 | 2.7894 | 1.332 84 | 30.153 |
| 281 | 6.5139 | 748.49 | 33.719 | 1242.1 | 2778.7 | 1536.6 | 3.0777 | 5.8506 | 2.7729 | 1.336 02 | 29.657 |
| 282 | 6.6124 | 746.70 | 34.283 | 1247.4 | 2777.5 | 1530.1 | 3.0869 | 5.8432 | 2.7563 | 1.339 22 | 29.169 |
| 283 | 6.7120 | 744.90 | 34.855 | 1252.7 | 2776.3 | 1523.6 | 3.0962 | 5.8358 | 2.7396 | 1.342 47 | 28.690 |
| 284 | 6.8128 | 743.08 | 35.437 | 1257.9 | 2775.0 | 1517.1 | 3.1054 | 5.8284 | 2.7229 | 1.345 75 | 28.219 |
| 285 | 6.9147 | 741.25 | 36.028 | 1263.2 | 2773.7 | 1510.5 | 3.1147 | 5.8209 | 2.7062 | 1.349 07 | 27.756 |
| 286 | 7.0177 | 739.41 | 36.629 | 1268.6 | 2772.4 | 1503.8 | 3.1240 | 5.8135 | 2.6895 | 1.352 43 | 27.301 |
| 287 | 7.1220 | 737.55 | 37.239 | 1273.9 | 2771.0 | 1497.1 | 3.1333 | 5.8060 | 2.6727 | 1.355 84 | 26.853 |
| 288 | 7.2274 | 735.68 | 37.860 | 1279.3 | 2769.6 | 1490.4 | 3.1426 | 5.7985 | 2.6559 | 1.359 28 | 26.413 |
| 289 | 7.3340 | 733.80 | 38.490 | 1284.6 | 2768.2 | 1483.5 | 3.1519 | 5.7909 | 2.6390 | 1.362 77 | 25.981 |
| 290 | 7.4418 | 731.91 | 39.132 | 1290.0 | 2766.7 | 1476.7 | 3.1612 | 5.7834 | 2.6222 | 1.366 30 | 25.555 |
| 291 | 7.5508 | 730.00 | 39.783 | 1295.4 | 2765.2 | 1469.7 | 3.1705 | 5.7758 | 2.6052 | 1.369 87 | 25.136 |
| 292 | 7.6610 | 728.07 | 40.446 | 1300.9 | 2763.6 | 1462.7 | 3.1799 | 5.7681 | 2.5883 | 1.373 49 | 24.724 |
| 293 | 7.7725 | 726.13 | 41.120 | 1306.3 | 2762.0 | 1455.7 | 3.1892 | 5.7605 | 2.5712 | 1.377 16 | 24.319 |
| 294 | 7.8852 | 724.18 | 41.805 | 1311.8 | 2760.4 | 1448.6 | 3.1986 | 5.7528 | 2.5542 | 1.380 87 | 23.921 |
| 295 | 7.9991 | 722.21 | 42.501 | 1317.3 | 2758.7 | 1441.4 | 3.2080 | 5.7451 | 2.5371 | 1.384 64 | 23.529 |
| 296 | 8.1143 | 720.23 | 43.210 | 1322.8 | 2757.0 | 1434.2 | 3.2174 | 5.7373 | 2.5199 | 1.388 45 | 23.143 |
| 297 | 8.2308 | 718.23 | 43.931 | 1328.3 | 2755.2 | 1426.9 | 3.2268 | 5.7295 | 2.5027 | 1.392 31 | 22.763 |
| 298 | 8.3485 | 716.21 | 44.664 | 1333.8 | 2753.4 | 1419.5 | 3.2362 | 5.7217 | 2.4854 | 1.396 23 | 22.390 |
| 299 | 8.4676 | 714.18 | 45.409 | 1339.4 | 2751.5 | 1412.1 | 3.2457 | 5.7138 | 2.4681 | 1.400 20 | 22.022 |
| 300 | 8.5879 | 712.14 | 46.168 | 1345.0 | 2749.6 | 1404.6 | 3.2552 | 5.7059 | 2.4507 | 1.404 23 | 21.660 |
| 301 | 8.7095 | 710.07 | 46.940 | 1350.6 | 2747.7 | 1397.1 | 3.2647 | 5.6979 | 2.4333 | 1.408 31 | 21.304 |
| 302 | 8.8325 | 707.99 | 47.725 | 1356.3 | 2745.7 | 1389.4 | 3.2742 | 5.6899 | 2.4158 | 1.412 45 | 20.953 |
| 303 | 8.9568 | 705.89 | 48.525 | 1361.9 | 2743.7 | 1381.7 | 3.2837 | 5.6819 | 2.3982 | 1.416 65 | 20.608 |
| 304 | 9.0824 | 703.77 | 49.338 | 1367.6 | 2741.6 | 1374.0 | 3.2932 | 5.6738 | 2.3806 | 1.420 91 | 20.268 |
| 305 | 9.2094 | 701.64 | 50.167 | 1373.3 | 2739.4 | 1366.1 | 3.3028 | 5.6657 | 2.3629 | 1.425 24 | 19.933 |
| 306 | 9.3378 | 699.48 | 51.010 | 1379.0 | 2737.2 | 1358.2 | 3.3124 | 5.6575 | 2.3452 | 1.429 63 | 19.604 |
| 307 | 9.4675 | 697.31 | 51.869 | 1384.8 | 2735.0 | 1350.2 | 3.3220 | 5.6493 | 2.3273 | 1.434 08 | 19.279 |
| 308 | 9.5986 | 695.12 | 52.743 | 1390.6 | 2732.7 | 1342.1 | 3.3316 | 5.6411 | 2.3094 | 1.438 61 | 18.960 |
| 309 | 9.7311 | 692.90 | 53.634 | 1396.4 | 2730.4 | 1334.0 | 3.3413 | 5.6327 | 2.2915 | 1.443 20 | 18.645 |
| 310 | 9.8651 | 690.67 | 54.541 | 1402.2 | 2727.9 | 1325.7 | 3.3510 | 5.6244 | 2.2734 | 1.447 87 | 18.335 |
| 311 | 10.000 | 688.42 | 55.466 | 1408.1 | 2725.5 | 1317.4 | 3.3607 | 5.6159 | 2.2553 | 1.452 61 | 18.029 |
| 312 | 10.137 | 686.14 | 56.408 | 1414.0 | 2723.0 | 1309.0 | 3.3704 | 5.6074 | 2.2370 | 1.457 43 | 17.728 |
| 313 | 10.275 | 683.84 | 57.368 | 1419.9 | 2720.4 | 1300.5 | 3.3802 | 5.5989 | 2.2187 | 1.462 32 | 17.431 |
| 314 | 10.415 | 681.52 | 58.346 | 1425.8 | 2717.8 | 1291.9 | 3.3900 | 5.5903 | 2.2003 | 1.467 30 | 17.139 |
| 315 | 10.556 | 679.18 | 59.344 | 1431.8 | 2715.1 | 1283.2 | 3.3998 | 5.5816 | 2.1818 | 1.472 36 | 16.851 |
| 316 | 10.699 | 676.81 | 60.361 | 1437.8 | 2712.3 | 1274.5 | 3.4097 | 5.5729 | 2.1632 | 1.477 51 | 16.567 |
| 317 | 10.843 | 674.42 | 61.398 | 1443.9 | 2709.5 | 1265.6 | 3.4195 | 5.5641 | 2.1445 | 1.482 75 | 16.287 |
| 318 | 10.989 | 672.00 | 62.457 | 1450.0 | 2706.6 | 1256.6 | 3.4295 | 5.5552 | 2.1257 | 1.488 09 | 16.011 |
| 319 | 11.136 | 669.56 | 63.537 | 1456.1 | 2703.6 | 1247.5 | 3.4394 | 5.5462 | 2.1068 | 1.493 51 | 15.739 |
| 320 | 11.284 | 667.09 | 64.638 | 1462.2 | 2700.6 | 1238.4 | 3.4494 | 5.5372 | 2.0878 | 1.499 04 | 15.471 |
| 321 | 11.434 | 664.60 | 65.763 | 1468.4 | 2697.5 | 1229.1 | 3.4595 | 5.5281 | 2.0686 | 1.504 67 | 15.206 |
| 322 | 11.586 | 662.07 | 66.912 | 1474.6 | 2694.3 | 1219.7 | 3.4695 | 5.5189 | 2.0494 | 1.510 40 | 14.945 |
| 323 | 11.740 | 659.52 | 68.084 | 1480.9 | 2691.1 | 1210.2 | 3.4797 | 5.5096 | 2.0300 | 1.516 25 | 14.688 |
| 324 | 11.895 | 656.94 | 69.282 | 1487.2 | 2687.7 | 1200.6 | 3.4898 | 5.5003 | 2.0105 | 1.522 21 | 14.434 |
| 325 | 12.051 | 654.33 | 70.506 | 1493.5 | 2684.3 | 1190.8 | 3.5000 | 5.4908 | 1.9908 | 1.528 29 | 14.183 |
| 326 | 12.209 | 651.68 | 71.757 | 1499.9 | 2680.8 | 1180.9 | 3.5103 | 5.4813 | 1.9710 | 1.534 49 | 13.936 |
| 327 | 12.369 | 649.01 | 73.036 | 1506.3 | 2677.3 | 1170.9 | 3.5206 | 5.4717 | 1.9511 | 1.540 81 | 13.692 |
| 328 | 12.530 | 646.30 | 74.344 | 1512.8 | 2673.6 | 1160.8 | 3.5309 | 5.4619 | 1.9310 | 1.547 27 | 13.451 |
| 329 | 12.693 | 643.55 | 75.682 | 1519.3 | 2669.9 | 1150.6 | 3.5413 | 5.4521 | 1.9108 | 1.553 87 | 13.213 |

Table 1. Saturation (Temperature) (continued)

| t , °C | p , MPa | Density, kg/m ³ | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg·K) | | | Volume, cm ³ /g | |
|----------|-----------|----------------------------|----------|-----------------|--------|------------|--------------------|--------|------------|----------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 330 | 12.858 | 640.77 | 77.050 | 1525.9 | 2666.0 | 1140.2 | 3.5518 | 5.4422 | 1.8903 | 1.560 61 | 12.979 |
| 331 | 13.024 | 637.96 | 78.452 | 1532.5 | 2662.1 | 1129.6 | 3.5623 | 5.4321 | 1.8698 | 1.567 51 | 12.747 |
| 332 | 13.193 | 635.10 | 79.887 | 1539.1 | 2658.1 | 1118.9 | 3.5729 | 5.4219 | 1.8490 | 1.574 56 | 12.518 |
| 333 | 13.362 | 632.20 | 81.356 | 1545.9 | 2653.9 | 1108.1 | 3.5835 | 5.4116 | 1.8281 | 1.581 77 | 12.292 |
| 334 | 13.534 | 629.27 | 82.863 | 1552.6 | 2649.7 | 1097.1 | 3.5943 | 5.4012 | 1.8069 | 1.589 15 | 12.068 |
| 335 | 13.707 | 626.29 | 84.407 | 1559.5 | 2645.4 | 1085.9 | 3.6050 | 5.3906 | 1.7856 | 1.596 71 | 11.847 |
| 336 | 13.882 | 623.26 | 85.991 | 1566.3 | 2640.9 | 1074.6 | 3.6159 | 5.3799 | 1.7640 | 1.604 47 | 11.629 |
| 337 | 14.059 | 620.19 | 87.616 | 1573.3 | 2636.3 | 1063.0 | 3.6268 | 5.3691 | 1.7422 | 1.612 41 | 11.413 |
| 338 | 14.238 | 617.07 | 89.284 | 1580.3 | 2631.6 | 1051.3 | 3.6378 | 5.3581 | 1.7202 | 1.620 57 | 11.200 |
| 339 | 14.418 | 613.89 | 90.998 | 1587.4 | 2626.8 | 1039.4 | 3.6489 | 5.3469 | 1.6980 | 1.628 95 | 10.989 |
| 340 | 14.601 | 610.67 | 92.759 | 1594.5 | 2621.8 | 1027.3 | 3.6601 | 5.3356 | 1.6755 | 1.637 55 | 10.781 |
| 341 | 14.785 | 607.38 | 94.570 | 1601.8 | 2616.8 | 1015.0 | 3.6714 | 5.3241 | 1.6527 | 1.646 40 | 10.574 |
| 342 | 14.971 | 604.04 | 96.433 | 1609.1 | 2611.5 | 1002.5 | 3.6828 | 5.3124 | 1.6296 | 1.655 51 | 10.370 |
| 343 | 15.159 | 600.64 | 98.351 | 1616.4 | 2606.1 | 989.7 | 3.6943 | 5.3005 | 1.6063 | 1.664 90 | 10.168 |
| 344 | 15.349 | 597.17 | 100.33 | 1623.9 | 2600.6 | 976.7 | 3.7059 | 5.2885 | 1.5826 | 1.674 57 | 9.9674 |
| 345 | 15.541 | 593.63 | 102.36 | 1631.5 | 2594.9 | 963.4 | 3.7176 | 5.2762 | 1.5586 | 1.684 56 | 9.7690 |
| 346 | 15.734 | 590.01 | 104.47 | 1639.1 | 2589.0 | 949.9 | 3.7295 | 5.2636 | 1.5342 | 1.694 88 | 9.5724 |
| 347 | 15.930 | 586.32 | 106.64 | 1646.9 | 2583.0 | 936.1 | 3.7414 | 5.2509 | 1.5094 | 1.705 56 | 9.3776 |
| 348 | 16.128 | 582.54 | 108.88 | 1654.8 | 2576.7 | 922.0 | 3.7536 | 5.2379 | 1.4843 | 1.716 62 | 9.1844 |
| 349 | 16.328 | 578.67 | 111.20 | 1662.8 | 2570.3 | 907.5 | 3.7659 | 5.2246 | 1.4587 | 1.728 10 | 8.9927 |
| 350 | 16.529 | 574.71 | 113.61 | 1670.9 | 2563.6 | 892.7 | 3.7784 | 5.2110 | 1.4326 | 1.740 02 | 8.8024 |
| 351 | 16.733 | 570.64 | 116.10 | 1679.1 | 2556.8 | 877.6 | 3.7910 | 5.1971 | 1.4061 | 1.752 43 | 8.6134 |
| 352 | 16.939 | 566.46 | 118.68 | 1687.5 | 2549.6 | 862.1 | 3.8039 | 5.1829 | 1.3790 | 1.765 36 | 8.4257 |
| 353 | 17.147 | 562.15 | 121.37 | 1696.1 | 2542.3 | 846.2 | 3.8170 | 5.1683 | 1.3514 | 1.778 88 | 8.2390 |
| 354 | 17.358 | 557.72 | 124.17 | 1704.8 | 2534.6 | 829.8 | 3.8303 | 5.1534 | 1.3231 | 1.793 02 | 8.0533 |
| 355 | 17.570 | 553.14 | 127.09 | 1713.7 | 2526.6 | 812.9 | 3.8439 | 5.1380 | 1.2942 | 1.807 86 | 7.8684 |
| 356 | 17.785 | 548.41 | 130.14 | 1722.8 | 2518.4 | 795.5 | 3.8577 | 5.1222 | 1.2645 | 1.823 47 | 7.6841 |
| 357 | 18.002 | 543.50 | 133.33 | 1732.2 | 2509.8 | 777.6 | 3.8719 | 5.1059 | 1.2340 | 1.839 93 | 7.5003 |
| 358 | 18.221 | 538.41 | 136.67 | 1741.7 | 2500.8 | 759.0 | 3.8864 | 5.0891 | 1.2026 | 1.857 33 | 7.3168 |
| 359 | 18.442 | 533.11 | 140.19 | 1751.5 | 2491.4 | 739.8 | 3.9014 | 5.0717 | 1.1703 | 1.875 78 | 7.1332 |
| 360 | 18.666 | 527.59 | 143.90 | 1761.7 | 2481.5 | 719.8 | 3.9167 | 5.0536 | 1.1369 | 1.895 41 | 6.9493 |
| 361 | 18.892 | 521.82 | 147.82 | 1772.1 | 2471.1 | 699.0 | 3.9325 | 5.0347 | 1.1023 | 1.916 35 | 6.7649 |
| 362 | 19.121 | 515.79 | 151.99 | 1782.9 | 2460.2 | 677.3 | 3.9488 | 5.0151 | 1.0663 | 1.938 79 | 6.5795 |
| 363 | 19.352 | 509.45 | 156.43 | 1794.1 | 2448.6 | 654.5 | 3.9656 | 4.9945 | 1.0288 | 1.962 90 | 6.3925 |
| 364 | 19.585 | 502.78 | 161.20 | 1805.7 | 2436.2 | 630.5 | 3.9831 | 4.9727 | 0.9896 | 1.988 94 | 6.2035 |
| 365 | 19.821 | 495.74 | 166.35 | 1817.8 | 2422.9 | 605.2 | 4.0014 | 4.9497 | 0.9483 | 2.0172 | 6.0115 |
| 366 | 20.060 | 488.27 | 171.95 | 1830.5 | 2408.7 | 578.2 | 4.0205 | 4.9251 | 0.9046 | 2.0480 | 5.8157 |
| 367 | 20.302 | 480.29 | 178.11 | 1843.8 | 2393.1 | 549.2 | 4.0406 | 4.8986 | 0.8580 | 2.0821 | 5.6145 |
| 368 | 20.546 | 471.67 | 184.98 | 1858.1 | 2375.9 | 517.8 | 4.0621 | 4.8697 | 0.8076 | 2.1201 | 5.4061 |
| 369 | 20.793 | 462.18 | 192.77 | 1873.5 | 2356.6 | 483.1 | 4.0853 | 4.8376 | 0.7523 | 2.1636 | 5.1875 |
| 370 | 21.044 | 451.43 | 201.84 | 1890.7 | 2334.5 | 443.8 | 4.1112 | 4.8012 | 0.6901 | 2.2152 | 4.9544 |
| 371 | 21.297 | 438.64 | 212.79 | 1910.6 | 2308.3 | 397.7 | 4.1412 | 4.7586 | 0.6175 | 2.2798 | 4.6995 |
| 372 | 21.554 | 422.26 | 226.84 | 1935.3 | 2275.5 | 340.3 | 4.1785 | 4.7059 | 0.5274 | 2.3682 | 4.4084 |
| 373 | 21.814 | 398.68 | 247.22 | 1969.7 | 2229.8 | 260.1 | 4.2308 | 4.6334 | 0.4026 | 2.5083 | 4.0450 |
| t_c | 22.064 | 322.00 | 322.00 | 2084.3 | 2084.3 | 0. | 4.4070 | 4.4070 | 0. | 3.1056 | 3.1056 |

($t_c = 373.946$ °C)

Table 2. Saturation (Pressure)

| p , MPa | t , °C | Density, kg/m ³ | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg·K) | | | Volume, cm ³ /g | |
|-------------------|----------|----------------------------|-----------|-----------------|--------|------------|--------------------|--------|------------|----------------------------|----------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 611.657 Pa | 0.01 | 999.79 | 0.004 855 | 0.00 | 2500.9 | 2500.9 | 0.000 00 | 9.1555 | 9.1555 | 1.000 21 | 205 991. |
| 0.0007 | 1.881 | 999.89 | 0.005 518 | 7.89 | 2504.3 | 2496.5 | 0.028 78 | 9.1058 | 9.0770 | 1.000 11 | 181 217. |
| 0.0008 | 3.761 | 999.92 | 0.006 264 | 15.81 | 2507.8 | 2492.0 | 0.057 48 | 9.0567 | 8.9992 | 1.000 08 | 159 640. |
| 0.0009 | 5.444 | 999.91 | 0.007 005 | 22.89 | 2510.9 | 2488.0 | 0.082 97 | 9.0135 | 8.9305 | 1.000 09 | 142 757. |
| 0.0010 | 6.970 | 999.86 | 0.007 741 | 29.30 | 2513.7 | 2484.4 | 0.105 91 | 8.9749 | 8.8690 | 1.000 14 | 129 178. |
| 0.0012 | 9.654 | 999.68 | 0.009 202 | 40.57 | 2518.6 | 2478.0 | 0.145 95 | 8.9082 | 8.7623 | 1.000 32 | 108 670. |
| 0.0014 | 11.969 | 999.46 | 0.010 650 | 50.28 | 2522.8 | 2472.5 | 0.180 15 | 8.8521 | 8.6719 | 1.000 54 | 93 899. |
| 0.0016 | 14.010 | 999.20 | 0.012 086 | 58.83 | 2526.5 | 2467.7 | 0.210 04 | 8.8035 | 8.5935 | 1.000 80 | 82 743. |
| 0.0018 | 15.837 | 998.93 | 0.013 511 | 66.49 | 2529.9 | 2463.4 | 0.236 62 | 8.7608 | 8.5241 | 1.001 08 | 74 011. |
| 0.0020 | 17.495 | 998.64 | 0.014 928 | 73.43 | 2532.9 | 2459.4 | 0.260 56 | 8.7226 | 8.4620 | 1.001 36 | 66 987. |
| 0.0024 | 20.414 | 998.08 | 0.017 738 | 85.65 | 2538.2 | 2452.5 | 0.302 39 | 8.6567 | 8.3544 | 1.001 93 | 56 375. |
| 0.0028 | 22.935 | 997.51 | 0.020 522 | 96.19 | 2542.8 | 2446.6 | 0.338 16 | 8.6012 | 8.2631 | 1.002 49 | 48 729. |
| 0.0032 | 25.158 | 996.96 | 0.023 282 | 105.49 | 2546.8 | 2441.3 | 0.369 45 | 8.5533 | 8.1838 | 1.003 05 | 42 952. |
| 0.0036 | 27.152 | 996.43 | 0.026 021 | 113.83 | 2550.4 | 2436.6 | 0.397 29 | 8.5110 | 8.1138 | 1.003 58 | 38 430. |
| 0.0040 | 28.960 | 995.92 | 0.028 743 | 121.39 | 2553.7 | 2432.3 | 0.422 39 | 8.4734 | 8.0510 | 1.004 10 | 34 791. |
| 0.0045 | 31.012 | 995.30 | 0.032 122 | 129.96 | 2557.4 | 2427.4 | 0.450 69 | 8.4313 | 7.9806 | 1.004 73 | 31 131. |
| 0.0050 | 32.874 | 994.70 | 0.035 480 | 137.75 | 2560.7 | 2423.0 | 0.476 20 | 8.3938 | 7.9176 | 1.005 33 | 28 185. |
| 0.0055 | 34.581 | 994.13 | 0.038 816 | 144.88 | 2563.8 | 2418.9 | 0.499 45 | 8.3599 | 7.8605 | 1.005 90 | 25 762. |
| 0.0060 | 36.159 | 993.59 | 0.042 135 | 151.48 | 2566.6 | 2415.2 | 0.520 82 | 8.3290 | 7.8082 | 1.006 45 | 23 733. |
| 0.0065 | 37.627 | 993.06 | 0.045 436 | 157.61 | 2569.3 | 2411.6 | 0.540 60 | 8.3007 | 7.7601 | 1.006 99 | 22 009. |
| 0.0070 | 39.000 | 992.55 | 0.048 722 | 163.35 | 2571.7 | 2408.4 | 0.559 03 | 8.2745 | 7.7154 | 1.007 50 | 20 524. |
| 0.0075 | 40.290 | 992.06 | 0.051 994 | 168.75 | 2574.0 | 2405.3 | 0.576 27 | 8.2501 | 7.6738 | 1.008 00 | 19 233. |
| 0.0080 | 41.509 | 991.59 | 0.055 252 | 173.84 | 2576.2 | 2402.4 | 0.592 49 | 8.2273 | 7.6348 | 1.008 48 | 18 099. |
| 0.0085 | 42.663 | 991.13 | 0.058 498 | 178.67 | 2578.3 | 2399.6 | 0.607 80 | 8.2060 | 7.5982 | 1.008 95 | 17 095. |
| 0.0090 | 43.761 | 990.69 | 0.061 731 | 183.25 | 2580.2 | 2397.0 | 0.622 30 | 8.1858 | 7.5635 | 1.009 40 | 16 199. |
| 0.0095 | 44.807 | 990.25 | 0.064 954 | 187.63 | 2582.1 | 2394.5 | 0.636 07 | 8.1668 | 7.5308 | 1.009 84 | 15 396. |
| 0.010 | 45.806 | 989.83 | 0.068 166 | 191.81 | 2583.9 | 2392.1 | 0.649 20 | 8.1488 | 7.4996 | 1.010 27 | 14 670. |
| 0.011 | 47.683 | 989.03 | 0.074 560 | 199.65 | 2587.2 | 2387.5 | 0.673 72 | 8.1154 | 7.4417 | 1.011 10 | 13 412. |
| 0.012 | 49.419 | 988.26 | 0.080 917 | 206.91 | 2590.3 | 2383.4 | 0.696 28 | 8.0849 | 7.3887 | 1.011 88 | 12 358. |
| 0.013 | 51.034 | 987.53 | 0.087 242 | 213.67 | 2593.1 | 2379.4 | 0.717 17 | 8.0570 | 7.3398 | 1.012 63 | 11 462. |
| 0.014 | 52.547 | 986.82 | 0.093 535 | 219.99 | 2595.8 | 2375.8 | 0.736 64 | 8.0311 | 7.2945 | 1.013 35 | 10 691. |
| 0.016 | 55.313 | 985.50 | 0.106 04 | 231.57 | 2600.6 | 2369.1 | 0.772 01 | 7.9846 | 7.2126 | 1.014 71 | 9430.6 |
| 0.018 | 57.798 | 984.28 | 0.118 44 | 241.96 | 2605.0 | 2363.0 | 0.803 55 | 7.9437 | 7.1402 | 1.015 97 | 8443.1 |
| 0.020 | 60.058 | 983.13 | 0.130 75 | 251.42 | 2608.9 | 2357.5 | 0.832 02 | 7.9072 | 7.0752 | 1.017 16 | 7648.0 |
| 0.024 | 64.053 | 981.03 | 0.155 15 | 268.15 | 2615.9 | 2347.7 | 0.881 91 | 7.8442 | 6.9623 | 1.019 34 | 6445.3 |
| 0.028 | 67.518 | 979.13 | 0.179 28 | 282.66 | 2621.8 | 2339.2 | 0.924 72 | 7.7912 | 6.8664 | 1.021 31 | 5577.8 |
| 0.032 | 70.586 | 977.40 | 0.203 19 | 295.52 | 2627.1 | 2331.6 | 0.962 28 | 7.7453 | 6.7830 | 1.023 12 | 4921.5 |
| 0.036 | 73.345 | 975.80 | 0.226 90 | 307.09 | 2631.8 | 2324.7 | 0.995 79 | 7.7050 | 6.7092 | 1.024 80 | 4407.2 |
| 0.040 | 75.857 | 974.30 | 0.250 44 | 317.62 | 2636.1 | 2318.4 | 1.0261 | 7.6690 | 6.6429 | 1.026 38 | 3993.0 |
| 0.045 | 78.715 | 972.56 | 0.279 65 | 329.62 | 2640.9 | 2311.2 | 1.0603 | 7.6288 | 6.5686 | 1.028 21 | 3575.9 |
| 0.050 | 81.317 | 970.94 | 0.308 64 | 340.54 | 2645.2 | 2304.7 | 1.0912 | 7.5930 | 6.5018 | 1.029 93 | 3240.0 |
| 0.055 | 83.709 | 969.42 | 0.337 44 | 350.59 | 2649.2 | 2298.6 | 1.1194 | 7.5606 | 6.4412 | 1.031 54 | 2963.5 |
| 0.060 | 85.926 | 967.99 | 0.366 07 | 359.91 | 2652.9 | 2292.9 | 1.1454 | 7.5311 | 6.3857 | 1.033 07 | 2731.7 |
| 0.065 | 87.993 | 966.63 | 0.394 54 | 368.60 | 2656.3 | 2287.7 | 1.1696 | 7.5040 | 6.3345 | 1.034 52 | 2534.6 |
| 0.070 | 89.932 | 965.34 | 0.422 87 | 376.75 | 2659.4 | 2282.7 | 1.1921 | 7.4790 | 6.2869 | 1.035 90 | 2364.8 |
| 0.075 | 91.758 | 964.11 | 0.451 07 | 384.44 | 2662.4 | 2277.9 | 1.2132 | 7.4557 | 6.2425 | 1.037 23 | 2217.0 |
| 0.080 | 93.486 | 962.93 | 0.479 14 | 391.71 | 2665.2 | 2273.5 | 1.2330 | 7.4339 | 6.2009 | 1.038 50 | 2087.1 |
| 0.085 | 95.125 | 961.79 | 0.507 09 | 398.62 | 2667.8 | 2269.2 | 1.2518 | 7.4135 | 6.1617 | 1.039 72 | 1972.0 |
| 0.090 | 96.687 | 960.70 | 0.534 94 | 405.20 | 2670.3 | 2265.1 | 1.2696 | 7.3943 | 6.1246 | 1.040 91 | 1869.4 |
| 0.095 | 98.178 | 959.65 | 0.562 69 | 411.48 | 2672.7 | 2261.2 | 1.2866 | 7.3761 | 6.0895 | 1.042 05 | 1777.2 |
| 0.10 | 99.606 | 958.63 | 0.590 34 | 417.50 | 2674.9 | 2257.4 | 1.3028 | 7.3588 | 6.0561 | 1.043 15 | 1693.9 |
| 0.11 | 102.292 | 956.69 | 0.645 39 | 428.84 | 2679.2 | 2250.3 | 1.3330 | 7.3269 | 5.9938 | 1.045 27 | 1549.5 |
| 0.12 | 104.784 | 954.86 | 0.700 10 | 439.36 | 2683.1 | 2243.7 | 1.3609 | 7.2977 | 5.9367 | 1.047 27 | 1428.4 |
| 0.13 | 107.109 | 953.13 | 0.754 53 | 449.19 | 2686.6 | 2237.5 | 1.3868 | 7.2709 | 5.8840 | 1.049 17 | 1325.3 |
| 0.14 | 109.292 | 951.49 | 0.808 69 | 458.42 | 2690.0 | 2231.6 | 1.4110 | 7.2461 | 5.8351 | 1.050 99 | 1236.6 |

Table 2. Saturation (Pressure) (continued)

| p , MPa | t , °C | Density, kg/m ³ | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg·K) | | | Volume, cm ³ /g | |
|-----------|----------|----------------------------|----------|-----------------|--------|------------|--------------------|--------|------------|----------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 0.15 | 111.349 | 949.92 | 0.862 60 | 467.13 | 2693.1 | 2226.0 | 1.4337 | 7.2230 | 5.7893 | 1.052 73 | 1159.3 |
| 0.16 | 113.297 | 948.41 | 0.916 29 | 475.38 | 2696.0 | 2220.7 | 1.4551 | 7.2014 | 5.7463 | 1.054 40 | 1091.4 |
| 0.17 | 115.148 | 946.97 | 0.969 76 | 483.22 | 2698.8 | 2215.6 | 1.4753 | 7.1812 | 5.7059 | 1.056 00 | 1031.2 |
| 0.18 | 116.911 | 945.57 | 1.0230 | 490.70 | 2701.4 | 2210.7 | 1.4945 | 7.1621 | 5.6676 | 1.057 56 | 977.47 |
| 0.19 | 118.596 | 944.23 | 1.0761 | 497.85 | 2703.9 | 2206.0 | 1.5127 | 7.1440 | 5.6313 | 1.059 06 | 929.24 |
| 0.20 | 120.210 | 942.94 | 1.1291 | 504.70 | 2706.2 | 2201.5 | 1.5302 | 7.1269 | 5.5967 | 1.060 52 | 885.68 |
| 0.21 | 121.759 | 941.68 | 1.1818 | 511.29 | 2708.5 | 2197.2 | 1.5469 | 7.1106 | 5.5638 | 1.061 93 | 846.14 |
| 0.22 | 123.250 | 940.47 | 1.2345 | 517.63 | 2710.6 | 2193.0 | 1.5628 | 7.0951 | 5.5323 | 1.063 30 | 810.07 |
| 0.23 | 124.686 | 939.28 | 1.2869 | 523.74 | 2712.7 | 2188.9 | 1.5782 | 7.0803 | 5.5021 | 1.064 64 | 777.04 |
| 0.24 | 126.072 | 938.13 | 1.3393 | 529.64 | 2714.6 | 2185.0 | 1.5930 | 7.0661 | 5.4731 | 1.065 94 | 746.68 |
| 0.25 | 127.411 | 937.02 | 1.3915 | 535.34 | 2716.5 | 2181.1 | 1.6072 | 7.0524 | 5.4452 | 1.067 22 | 718.66 |
| 0.26 | 128.708 | 935.93 | 1.4436 | 540.87 | 2718.3 | 2177.4 | 1.6210 | 7.0394 | 5.4184 | 1.068 46 | 692.73 |
| 0.27 | 129.965 | 934.86 | 1.4955 | 546.24 | 2720.0 | 2173.8 | 1.6343 | 7.0268 | 5.3925 | 1.069 68 | 668.65 |
| 0.28 | 131.185 | 933.83 | 1.5474 | 551.44 | 2721.7 | 2170.3 | 1.6471 | 7.0146 | 5.3675 | 1.070 86 | 646.24 |
| 0.29 | 132.370 | 932.81 | 1.5992 | 556.50 | 2723.3 | 2166.8 | 1.6596 | 7.0029 | 5.3433 | 1.072 03 | 625.33 |
| 0.30 | 133.522 | 931.82 | 1.6508 | 561.43 | 2724.9 | 2163.5 | 1.6717 | 6.9916 | 5.3199 | 1.073 17 | 605.76 |
| 0.31 | 134.644 | 930.85 | 1.7024 | 566.22 | 2726.4 | 2160.2 | 1.6835 | 6.9807 | 5.2972 | 1.074 29 | 587.41 |
| 0.32 | 135.737 | 929.90 | 1.7539 | 570.90 | 2727.8 | 2157.0 | 1.6949 | 6.9701 | 5.2752 | 1.075 39 | 570.17 |
| 0.33 | 136.802 | 928.96 | 1.8052 | 575.46 | 2729.3 | 2153.8 | 1.7060 | 6.9598 | 5.2538 | 1.076 47 | 553.95 |
| 0.34 | 137.842 | 928.05 | 1.8565 | 579.91 | 2730.6 | 2150.7 | 1.7168 | 6.9498 | 5.2330 | 1.077 53 | 538.64 |
| 0.35 | 138.857 | 927.15 | 1.9077 | 584.26 | 2732.0 | 2147.7 | 1.7274 | 6.9401 | 5.2128 | 1.078 57 | 524.18 |
| 0.36 | 139.849 | 926.27 | 1.9589 | 588.52 | 2733.2 | 2144.7 | 1.7377 | 6.9307 | 5.1931 | 1.079 60 | 510.50 |
| 0.37 | 140.819 | 925.40 | 2.0099 | 592.68 | 2734.5 | 2141.8 | 1.7477 | 6.9216 | 5.1739 | 1.080 61 | 497.53 |
| 0.38 | 141.769 | 924.55 | 2.0609 | 596.75 | 2735.7 | 2139.0 | 1.7575 | 6.9126 | 5.1551 | 1.081 61 | 485.22 |
| 0.39 | 142.698 | 923.71 | 2.1119 | 600.74 | 2736.9 | 2136.2 | 1.7671 | 6.9040 | 5.1369 | 1.082 59 | 473.52 |
| 0.40 | 143.608 | 922.89 | 2.1627 | 604.65 | 2738.1 | 2133.4 | 1.7765 | 6.8955 | 5.1190 | 1.083 55 | 462.38 |
| 0.42 | 145.375 | 921.28 | 2.2642 | 612.25 | 2740.3 | 2128.0 | 1.7946 | 6.8791 | 5.0846 | 1.085 44 | 441.65 |
| 0.44 | 147.076 | 919.72 | 2.3655 | 619.58 | 2742.4 | 2122.8 | 1.8120 | 6.8636 | 5.0516 | 1.087 29 | 422.74 |
| 0.46 | 148.716 | 918.20 | 2.4666 | 626.64 | 2744.4 | 2117.7 | 1.8287 | 6.8487 | 5.0199 | 1.089 08 | 405.42 |
| 0.48 | 150.300 | 916.73 | 2.5674 | 633.47 | 2746.3 | 2112.8 | 1.8448 | 6.8344 | 4.9895 | 1.090 84 | 389.50 |
| 0.50 | 151.831 | 915.29 | 2.6680 | 640.09 | 2748.1 | 2108.0 | 1.8604 | 6.8207 | 4.9603 | 1.092 55 | 374.81 |
| 0.52 | 153.314 | 913.89 | 2.7685 | 646.50 | 2749.9 | 2103.4 | 1.8754 | 6.8075 | 4.9321 | 1.094 23 | 361.20 |
| 0.54 | 154.753 | 912.52 | 2.8688 | 652.72 | 2751.5 | 2098.8 | 1.8899 | 6.7948 | 4.9049 | 1.095 87 | 348.58 |
| 0.56 | 156.149 | 911.18 | 2.9689 | 658.77 | 2753.1 | 2094.4 | 1.9040 | 6.7825 | 4.8786 | 1.097 48 | 336.82 |
| 0.58 | 157.506 | 909.87 | 3.0689 | 664.65 | 2754.7 | 2090.0 | 1.9176 | 6.7707 | 4.8531 | 1.099 05 | 325.85 |
| 0.60 | 158.826 | 908.59 | 3.1687 | 670.38 | 2756.1 | 2085.8 | 1.9308 | 6.7592 | 4.8284 | 1.100 60 | 315.58 |
| 0.62 | 160.112 | 907.34 | 3.2684 | 675.96 | 2757.6 | 2081.6 | 1.9437 | 6.7482 | 4.8045 | 1.102 12 | 305.96 |
| 0.64 | 161.365 | 906.11 | 3.3680 | 681.41 | 2758.9 | 2077.5 | 1.9562 | 6.7374 | 4.7813 | 1.103 62 | 296.91 |
| 0.66 | 162.587 | 904.91 | 3.4675 | 686.73 | 2760.3 | 2073.5 | 1.9684 | 6.7270 | 4.7587 | 1.105 09 | 288.40 |
| 0.68 | 163.781 | 903.72 | 3.5668 | 691.92 | 2761.5 | 2069.6 | 1.9802 | 6.7169 | 4.7367 | 1.106 54 | 280.36 |
| 0.70 | 164.946 | 902.56 | 3.6660 | 697.00 | 2762.8 | 2065.8 | 1.9918 | 6.7071 | 4.7153 | 1.107 96 | 272.77 |
| 0.72 | 166.086 | 901.42 | 3.7652 | 701.97 | 2763.9 | 2062.0 | 2.0031 | 6.6975 | 4.6944 | 1.109 36 | 265.59 |
| 0.74 | 167.200 | 900.30 | 3.8642 | 706.84 | 2765.1 | 2058.2 | 2.0141 | 6.6882 | 4.6741 | 1.110 75 | 258.79 |
| 0.76 | 168.291 | 899.19 | 3.9631 | 711.61 | 2766.2 | 2054.6 | 2.0248 | 6.6791 | 4.6543 | 1.112 11 | 252.33 |
| 0.78 | 169.360 | 898.10 | 4.0620 | 716.28 | 2767.3 | 2051.0 | 2.0354 | 6.6703 | 4.6349 | 1.113 46 | 246.18 |
| 0.80 | 170.406 | 897.04 | 4.1608 | 720.86 | 2768.3 | 2047.4 | 2.0457 | 6.6616 | 4.6160 | 1.114 78 | 240.34 |
| 0.82 | 171.433 | 895.98 | 4.2595 | 725.36 | 2769.3 | 2043.9 | 2.0557 | 6.6532 | 4.5975 | 1.116 09 | 234.77 |
| 0.84 | 172.440 | 894.94 | 4.3581 | 729.78 | 2770.3 | 2040.5 | 2.0656 | 6.6449 | 4.5793 | 1.117 39 | 229.46 |
| 0.86 | 173.428 | 893.92 | 4.4567 | 734.11 | 2771.2 | 2037.1 | 2.0753 | 6.6369 | 4.5616 | 1.118 67 | 224.38 |
| 0.88 | 174.398 | 892.91 | 4.5552 | 738.37 | 2772.1 | 2033.8 | 2.0847 | 6.6290 | 4.5443 | 1.119 93 | 219.53 |
| 0.90 | 175.350 | 891.92 | 4.6536 | 742.56 | 2773.0 | 2030.5 | 2.0940 | 6.6213 | 4.5272 | 1.121 18 | 214.89 |
| 0.92 | 176.287 | 890.93 | 4.7520 | 746.68 | 2773.9 | 2027.2 | 2.1032 | 6.6137 | 4.5106 | 1.122 42 | 210.44 |
| 0.94 | 177.207 | 889.96 | 4.8503 | 750.73 | 2774.7 | 2024.0 | 2.1121 | 6.6063 | 4.4942 | 1.123 64 | 206.17 |
| 0.96 | 178.112 | 889.01 | 4.9486 | 754.72 | 2775.5 | 2020.8 | 2.1209 | 6.5991 | 4.4782 | 1.124 85 | 202.08 |
| 0.98 | 179.002 | 888.06 | 5.0468 | 758.65 | 2776.3 | 2017.7 | 2.1296 | 6.5920 | 4.4624 | 1.126 05 | 198.14 |

Table 2. Saturation (Pressure) (continued)

| p , MPa | t , °C | Density, kg/m ³ | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg·K) | | | Volume, cm ³ /g | |
|-----------|----------|----------------------------|----------|-----------------|--------|------------|--------------------|--------|------------|----------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 1.00 | 179.878 | 887.13 | 5.1450 | 762.52 | 2777.1 | 2014.6 | 2.1381 | 6.5850 | 4.4470 | 1.127 23 | 194.36 |
| 1.05 | 182.009 | 884.84 | 5.3903 | 771.94 | 2778.9 | 2007.0 | 2.1587 | 6.5681 | 4.4095 | 1.130 14 | 185.52 |
| 1.10 | 184.062 | 882.62 | 5.6354 | 781.03 | 2780.6 | 1999.6 | 2.1785 | 6.5520 | 4.3735 | 1.132 99 | 177.45 |
| 1.15 | 186.043 | 880.46 | 5.8804 | 789.82 | 2782.2 | 1992.4 | 2.1976 | 6.5365 | 4.3390 | 1.135 77 | 170.06 |
| 1.20 | 187.957 | 878.35 | 6.1251 | 798.33 | 2783.7 | 1985.4 | 2.2159 | 6.5217 | 4.3058 | 1.138 50 | 163.26 |
| 1.25 | 189.809 | 876.29 | 6.3698 | 806.58 | 2785.1 | 1978.6 | 2.2337 | 6.5074 | 4.2737 | 1.141 18 | 156.99 |
| 1.30 | 191.605 | 874.28 | 6.6144 | 814.60 | 2786.5 | 1971.9 | 2.2508 | 6.4936 | 4.2428 | 1.143 80 | 151.19 |
| 1.35 | 193.347 | 872.31 | 6.8589 | 822.39 | 2787.7 | 1965.3 | 2.2674 | 6.4803 | 4.2129 | 1.146 38 | 145.80 |
| 1.40 | 195.039 | 870.39 | 7.1034 | 829.97 | 2788.8 | 1958.9 | 2.2835 | 6.4675 | 4.1839 | 1.148 92 | 140.78 |
| 1.45 | 196.685 | 868.50 | 7.3479 | 837.35 | 2789.9 | 1952.6 | 2.2992 | 6.4550 | 4.1559 | 1.151 41 | 136.09 |
| 1.50 | 198.287 | 866.65 | 7.5924 | 844.56 | 2791.0 | 1946.4 | 2.3143 | 6.4430 | 4.1286 | 1.153 87 | 131.71 |
| 1.55 | 199.848 | 864.84 | 7.8369 | 851.59 | 2791.9 | 1940.3 | 2.3291 | 6.4313 | 4.1022 | 1.156 29 | 127.60 |
| 1.60 | 201.370 | 863.05 | 8.0815 | 858.46 | 2792.8 | 1934.4 | 2.3435 | 6.4199 | 4.0765 | 1.158 68 | 123.74 |
| 1.65 | 202.856 | 861.30 | 8.3261 | 865.17 | 2793.7 | 1928.5 | 2.3575 | 6.4089 | 4.0514 | 1.161 03 | 120.10 |
| 1.70 | 204.307 | 859.58 | 8.5708 | 871.74 | 2794.5 | 1922.7 | 2.3711 | 6.3981 | 4.0270 | 1.163 36 | 116.67 |
| 1.75 | 205.725 | 857.89 | 8.8156 | 878.17 | 2795.2 | 1917.0 | 2.3845 | 6.3877 | 4.0032 | 1.165 65 | 113.43 |
| 1.80 | 207.112 | 856.22 | 9.0606 | 884.47 | 2795.9 | 1911.4 | 2.3975 | 6.3775 | 3.9800 | 1.167 92 | 110.37 |
| 1.85 | 208.469 | 854.58 | 9.3056 | 890.65 | 2796.6 | 1905.9 | 2.4102 | 6.3675 | 3.9573 | 1.170 16 | 107.46 |
| 1.90 | 209.798 | 852.96 | 9.5508 | 896.71 | 2797.2 | 1900.5 | 2.4227 | 6.3578 | 3.9351 | 1.172 38 | 104.70 |
| 1.95 | 211.101 | 851.37 | 9.7962 | 902.66 | 2797.8 | 1895.1 | 2.4348 | 6.3483 | 3.9135 | 1.174 58 | 102.08 |
| 2.0 | 212.377 | 849.80 | 10.042 | 908.50 | 2798.3 | 1889.8 | 2.4468 | 6.3390 | 3.8923 | 1.176 75 | 99.585 |
| 2.1 | 214.858 | 846.72 | 10.533 | 919.87 | 2799.3 | 1879.4 | 2.4699 | 6.3210 | 3.8511 | 1.181 03 | 94.938 |
| 2.2 | 217.249 | 843.72 | 11.026 | 930.87 | 2800.1 | 1869.2 | 2.4921 | 6.3038 | 3.8116 | 1.185 23 | 90.698 |
| 2.3 | 219.557 | 840.79 | 11.519 | 941.53 | 2800.8 | 1859.3 | 2.5136 | 6.2872 | 3.7736 | 1.189 36 | 86.815 |
| 2.4 | 221.789 | 837.92 | 12.013 | 951.87 | 2801.4 | 1849.6 | 2.5343 | 6.2712 | 3.7369 | 1.193 43 | 83.244 |
| 2.5 | 223.950 | 835.12 | 12.508 | 961.91 | 2801.9 | 1840.0 | 2.5543 | 6.2558 | 3.7015 | 1.197 43 | 79.949 |
| 2.6 | 226.046 | 832.37 | 13.004 | 971.67 | 2802.3 | 1830.7 | 2.5736 | 6.2409 | 3.6672 | 1.201 38 | 76.899 |
| 2.7 | 228.080 | 829.68 | 13.501 | 981.18 | 2802.7 | 1821.5 | 2.5924 | 6.2264 | 3.6340 | 1.205 28 | 74.066 |
| 2.8 | 230.057 | 827.04 | 14.000 | 990.46 | 2802.9 | 1812.4 | 2.6106 | 6.2124 | 3.6018 | 1.209 13 | 71.429 |
| 2.9 | 231.980 | 824.45 | 14.500 | 999.51 | 2803.1 | 1803.6 | 2.6283 | 6.1988 | 3.5705 | 1.212 93 | 68.968 |
| 3.0 | 233.853 | 821.90 | 15.001 | 1008.3 | 2803.2 | 1794.8 | 2.6455 | 6.1856 | 3.5400 | 1.216 69 | 66.664 |
| 3.1 | 235.679 | 819.39 | 15.503 | 1017.0 | 2803.2 | 1786.2 | 2.6623 | 6.1727 | 3.5104 | 1.220 42 | 64.504 |
| 3.2 | 237.459 | 816.92 | 16.006 | 1025.4 | 2803.1 | 1777.7 | 2.6787 | 6.1602 | 3.4815 | 1.224 10 | 62.475 |
| 3.3 | 239.198 | 814.49 | 16.512 | 1033.7 | 2803.0 | 1769.3 | 2.6946 | 6.1479 | 3.4533 | 1.227 76 | 60.564 |
| 3.4 | 240.897 | 812.10 | 17.018 | 1041.8 | 2802.9 | 1761.0 | 2.7102 | 6.1360 | 3.4258 | 1.231 38 | 58.761 |
| 3.5 | 242.557 | 809.74 | 17.526 | 1049.8 | 2802.6 | 1752.8 | 2.7254 | 6.1243 | 3.3989 | 1.234 97 | 57.058 |
| 3.6 | 244.182 | 807.41 | 18.036 | 1057.6 | 2802.4 | 1744.8 | 2.7403 | 6.1129 | 3.3726 | 1.238 54 | 55.446 |
| 3.7 | 245.772 | 805.10 | 18.547 | 1065.3 | 2802.1 | 1736.8 | 2.7549 | 6.1018 | 3.3469 | 1.242 08 | 53.918 |
| 3.8 | 247.330 | 802.83 | 19.059 | 1072.8 | 2801.7 | 1728.9 | 2.7691 | 6.0908 | 3.3217 | 1.245 59 | 52.467 |
| 3.9 | 248.857 | 800.59 | 19.574 | 1080.2 | 2801.3 | 1721.1 | 2.7831 | 6.0801 | 3.2970 | 1.249 08 | 51.089 |
| 4.0 | 250.354 | 798.37 | 20.090 | 1087.5 | 2800.8 | 1713.3 | 2.7968 | 6.0696 | 3.2728 | 1.252 56 | 49.776 |
| 4.1 | 251.823 | 796.17 | 20.608 | 1094.7 | 2800.3 | 1705.7 | 2.8102 | 6.0592 | 3.2491 | 1.256 01 | 48.525 |
| 4.2 | 253.264 | 794.00 | 21.127 | 1101.7 | 2799.8 | 1698.1 | 2.8234 | 6.0491 | 3.2257 | 1.259 44 | 47.332 |
| 4.3 | 254.680 | 791.85 | 21.649 | 1108.7 | 2799.2 | 1690.6 | 2.8363 | 6.0391 | 3.2028 | 1.262 86 | 46.192 |
| 4.4 | 256.070 | 789.73 | 22.172 | 1115.5 | 2798.6 | 1683.1 | 2.8490 | 6.0293 | 3.1803 | 1.266 26 | 45.102 |
| 4.5 | 257.437 | 787.62 | 22.697 | 1122.2 | 2797.9 | 1675.7 | 2.8615 | 6.0197 | 3.1582 | 1.269 65 | 44.059 |
| 4.6 | 258.780 | 785.53 | 23.224 | 1128.9 | 2797.3 | 1668.4 | 2.8738 | 6.0102 | 3.1364 | 1.273 02 | 43.059 |
| 4.7 | 260.101 | 783.47 | 23.753 | 1135.5 | 2796.5 | 1661.1 | 2.8859 | 6.0009 | 3.1150 | 1.276 38 | 42.100 |
| 4.8 | 261.402 | 781.42 | 24.284 | 1141.9 | 2795.8 | 1653.9 | 2.8978 | 5.9917 | 3.0939 | 1.279 73 | 41.180 |
| 4.9 | 262.681 | 779.38 | 24.816 | 1148.3 | 2795.0 | 1646.7 | 2.9095 | 5.9826 | 3.0731 | 1.283 06 | 40.296 |
| 5.0 | 263.941 | 777.37 | 25.351 | 1154.6 | 2794.2 | 1639.6 | 2.9210 | 5.9737 | 3.0527 | 1.286 39 | 39.446 |
| 5.1 | 265.181 | 775.37 | 25.888 | 1160.9 | 2793.4 | 1632.5 | 2.9323 | 5.9648 | 3.0325 | 1.289 71 | 38.628 |
| 5.2 | 266.403 | 773.39 | 26.427 | 1167.0 | 2792.5 | 1625.5 | 2.9435 | 5.9561 | 3.0126 | 1.293 02 | 37.840 |
| 5.3 | 267.608 | 771.42 | 26.968 | 1173.1 | 2791.6 | 1618.5 | 2.9546 | 5.9475 | 2.9930 | 1.296 32 | 37.081 |
| 5.4 | 268.795 | 769.46 | 27.512 | 1179.1 | 2790.7 | 1611.5 | 2.9654 | 5.9391 | 2.9736 | 1.299 61 | 36.348 |

Table 2. Saturation (Pressure) (continued)

| p , MPa | t , °C | Density, kg/m ³ | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg·K) | | | Volume, cm ³ /g | |
|-----------|----------|----------------------------|----------|-----------------|--------|------------|--------------------|--------|------------|----------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 5.5 | 269.965 | 767.52 | 28.057 | 1185.1 | 2789.7 | 1604.6 | 2.9762 | 5.9307 | 2.9545 | 1.302 90 | 35.642 |
| 5.6 | 271.120 | 765.59 | 28.605 | 1191.0 | 2788.7 | 1597.8 | 2.9868 | 5.9224 | 2.9356 | 1.306 18 | 34.959 |
| 5.7 | 272.258 | 763.67 | 29.155 | 1196.8 | 2787.7 | 1590.9 | 2.9972 | 5.9142 | 2.9170 | 1.309 46 | 34.300 |
| 5.8 | 273.382 | 761.77 | 29.707 | 1202.6 | 2786.7 | 1584.1 | 3.0075 | 5.9061 | 2.8985 | 1.312 73 | 33.662 |
| 5.9 | 274.490 | 759.88 | 30.262 | 1208.3 | 2785.7 | 1577.4 | 3.0177 | 5.8981 | 2.8803 | 1.316 00 | 33.045 |
| 6.0 | 275.585 | 758.00 | 30.818 | 1213.9 | 2784.6 | 1570.7 | 3.0278 | 5.8901 | 2.8623 | 1.319 26 | 32.448 |
| 6.1 | 276.666 | 756.13 | 31.378 | 1219.5 | 2783.5 | 1564.0 | 3.0377 | 5.8823 | 2.8445 | 1.322 53 | 31.870 |
| 6.2 | 277.733 | 754.27 | 31.940 | 1225.1 | 2782.4 | 1557.3 | 3.0476 | 5.8745 | 2.8269 | 1.325 79 | 31.309 |
| 6.3 | 278.787 | 752.42 | 32.504 | 1230.5 | 2781.2 | 1550.7 | 3.0573 | 5.8668 | 2.8095 | 1.329 05 | 30.766 |
| 6.4 | 279.829 | 750.58 | 33.070 | 1236.0 | 2780.1 | 1544.1 | 3.0669 | 5.8592 | 2.7923 | 1.332 30 | 30.238 |
| 6.5 | 280.858 | 748.75 | 33.640 | 1241.4 | 2778.9 | 1537.5 | 3.0764 | 5.8516 | 2.7752 | 1.335 56 | 29.727 |
| 6.6 | 281.875 | 746.93 | 34.211 | 1246.7 | 2777.7 | 1530.9 | 3.0858 | 5.8441 | 2.7583 | 1.338 82 | 29.230 |
| 6.7 | 282.880 | 745.11 | 34.786 | 1252.0 | 2776.4 | 1524.4 | 3.0951 | 5.8367 | 2.7416 | 1.342 08 | 28.747 |
| 6.8 | 283.874 | 743.31 | 35.363 | 1257.3 | 2775.2 | 1517.9 | 3.1043 | 5.8293 | 2.7250 | 1.345 33 | 28.278 |
| 6.9 | 284.857 | 741.51 | 35.943 | 1262.5 | 2773.9 | 1511.4 | 3.1134 | 5.8220 | 2.7086 | 1.348 59 | 27.822 |
| 7.0 | 285.829 | 739.72 | 36.525 | 1267.7 | 2772.6 | 1505.0 | 3.1224 | 5.8148 | 2.6924 | 1.351 86 | 27.378 |
| 7.1 | 286.790 | 737.94 | 37.110 | 1272.8 | 2771.3 | 1498.5 | 3.1313 | 5.8076 | 2.6762 | 1.355 12 | 26.947 |
| 7.2 | 287.741 | 736.17 | 37.698 | 1277.9 | 2770.0 | 1492.1 | 3.1402 | 5.8004 | 2.6603 | 1.358 39 | 26.526 |
| 7.3 | 288.682 | 734.40 | 38.289 | 1282.9 | 2768.6 | 1485.7 | 3.1489 | 5.7933 | 2.6444 | 1.361 66 | 26.117 |
| 7.4 | 289.614 | 732.64 | 38.883 | 1287.9 | 2767.3 | 1479.3 | 3.1576 | 5.7863 | 2.6287 | 1.364 93 | 25.718 |
| 7.5 | 290.535 | 730.88 | 39.479 | 1292.9 | 2765.9 | 1473.0 | 3.1662 | 5.7793 | 2.6131 | 1.368 21 | 25.330 |
| 7.6 | 291.448 | 729.14 | 40.079 | 1297.9 | 2764.5 | 1466.6 | 3.1747 | 5.7723 | 2.5976 | 1.371 49 | 24.951 |
| 7.7 | 292.351 | 727.39 | 40.681 | 1302.8 | 2763.1 | 1460.3 | 3.1832 | 5.7654 | 2.5823 | 1.374 77 | 24.581 |
| 7.8 | 293.245 | 725.66 | 41.287 | 1307.7 | 2761.6 | 1454.0 | 3.1915 | 5.7586 | 2.5671 | 1.378 06 | 24.221 |
| 7.9 | 294.131 | 723.92 | 41.895 | 1312.5 | 2760.2 | 1447.7 | 3.1998 | 5.7518 | 2.5519 | 1.381 36 | 23.869 |
| 8.0 | 295.008 | 722.20 | 42.507 | 1317.3 | 2758.7 | 1441.4 | 3.2081 | 5.7450 | 2.5369 | 1.384 67 | 23.526 |
| 8.1 | 295.876 | 720.47 | 43.122 | 1322.1 | 2757.2 | 1435.1 | 3.2162 | 5.7383 | 2.5220 | 1.387 97 | 23.190 |
| 8.2 | 296.737 | 718.76 | 43.740 | 1326.8 | 2755.7 | 1428.8 | 3.2243 | 5.7316 | 2.5072 | 1.391 29 | 22.863 |
| 8.3 | 297.589 | 717.04 | 44.361 | 1331.6 | 2754.1 | 1422.6 | 3.2324 | 5.7249 | 2.4925 | 1.394 61 | 22.542 |
| 8.4 | 298.434 | 715.34 | 44.985 | 1336.3 | 2752.6 | 1416.3 | 3.2403 | 5.7183 | 2.4779 | 1.397 95 | 22.229 |
| 8.5 | 299.271 | 713.63 | 45.613 | 1340.9 | 2751.0 | 1410.1 | 3.2483 | 5.7117 | 2.4634 | 1.401 28 | 21.923 |
| 8.6 | 300.100 | 711.93 | 46.244 | 1345.6 | 2749.4 | 1403.9 | 3.2561 | 5.7051 | 2.4490 | 1.404 63 | 21.624 |
| 8.7 | 300.922 | 710.23 | 46.879 | 1350.2 | 2747.8 | 1397.7 | 3.2639 | 5.6986 | 2.4347 | 1.407 99 | 21.332 |
| 8.8 | 301.737 | 708.54 | 47.517 | 1354.8 | 2746.2 | 1391.5 | 3.2717 | 5.6921 | 2.4204 | 1.411 35 | 21.045 |
| 8.9 | 302.544 | 706.85 | 48.159 | 1359.3 | 2744.6 | 1385.3 | 3.2793 | 5.6856 | 2.4062 | 1.414 73 | 20.765 |
| 9.0 | 303.345 | 705.16 | 48.804 | 1363.9 | 2742.9 | 1379.1 | 3.2870 | 5.6791 | 2.3922 | 1.418 11 | 20.490 |
| 9.1 | 304.139 | 703.48 | 49.453 | 1368.4 | 2741.3 | 1372.9 | 3.2946 | 5.6727 | 2.3782 | 1.421 51 | 20.221 |
| 9.2 | 304.926 | 701.80 | 50.105 | 1372.9 | 2739.6 | 1366.7 | 3.3021 | 5.6663 | 2.3642 | 1.424 91 | 19.958 |
| 9.3 | 305.707 | 700.12 | 50.761 | 1377.4 | 2737.9 | 1360.5 | 3.3096 | 5.6599 | 2.3504 | 1.428 33 | 19.700 |
| 9.4 | 306.481 | 698.44 | 51.421 | 1381.8 | 2736.2 | 1354.4 | 3.3170 | 5.6536 | 2.3366 | 1.431 76 | 19.447 |
| 9.5 | 307.249 | 696.77 | 52.085 | 1386.2 | 2734.4 | 1348.2 | 3.3244 | 5.6473 | 2.3229 | 1.435 20 | 19.199 |
| 9.6 | 308.010 | 695.09 | 52.753 | 1390.6 | 2732.7 | 1342.0 | 3.3317 | 5.6410 | 2.3092 | 1.438 65 | 18.956 |
| 9.7 | 308.766 | 693.42 | 53.424 | 1395.0 | 2730.9 | 1335.9 | 3.3390 | 5.6347 | 2.2957 | 1.442 12 | 18.718 |
| 9.8 | 309.516 | 691.76 | 54.100 | 1399.4 | 2729.1 | 1329.7 | 3.3463 | 5.6284 | 2.2822 | 1.445 60 | 18.484 |
| 9.9 | 310.259 | 690.09 | 54.779 | 1403.7 | 2727.3 | 1323.6 | 3.3535 | 5.6222 | 2.2687 | 1.449 09 | 18.255 |
| 10.0 | 310.997 | 688.42 | 55.463 | 1408.1 | 2725.5 | 1317.4 | 3.3606 | 5.6160 | 2.2553 | 1.452 59 | 18.030 |
| 10.2 | 312.456 | 685.10 | 56.843 | 1416.7 | 2721.8 | 1305.1 | 3.3749 | 5.6035 | 2.2287 | 1.459 65 | 17.592 |
| 10.4 | 313.893 | 681.77 | 58.240 | 1425.2 | 2718.0 | 1292.8 | 3.3889 | 5.5912 | 2.2023 | 1.466 76 | 17.170 |
| 10.6 | 315.308 | 678.45 | 59.655 | 1433.7 | 2714.2 | 1280.5 | 3.4028 | 5.5789 | 2.1761 | 1.473 94 | 16.763 |
| 10.8 | 316.703 | 675.13 | 61.089 | 1442.1 | 2710.3 | 1268.2 | 3.4166 | 5.5667 | 2.1501 | 1.481 19 | 16.370 |
| 11.0 | 318.079 | 671.81 | 62.541 | 1450.4 | 2706.3 | 1255.9 | 3.4303 | 5.5545 | 2.1242 | 1.488 51 | 15.990 |
| 11.2 | 319.434 | 668.49 | 64.012 | 1458.7 | 2702.3 | 1243.6 | 3.4438 | 5.5423 | 2.0985 | 1.495 90 | 15.622 |
| 11.4 | 320.771 | 665.17 | 65.504 | 1467.0 | 2698.2 | 1231.2 | 3.4572 | 5.5302 | 2.0730 | 1.503 37 | 15.266 |
| 11.6 | 322.090 | 661.85 | 67.016 | 1475.2 | 2694.0 | 1218.8 | 3.4705 | 5.5181 | 2.0476 | 1.510 93 | 14.922 |
| 11.8 | 323.391 | 658.52 | 68.550 | 1483.3 | 2689.8 | 1206.4 | 3.4836 | 5.5060 | 2.0224 | 1.518 57 | 14.588 |

Table 2. Saturation (Pressure) (continued)

| p , MPa | t , °C | Density, kg/m ³ | | Enthalpy, kJ/kg | | | Entropy, kJ/(kg·K) | | | Volume, cm ³ /g | |
|-----------|----------|----------------------------|----------|-----------------|--------|------------|--------------------|--------|------------|----------------------------|--------|
| | | ρ_L | ρ_V | h_L | h_V | Δh | s_L | s_V | Δs | v_L | v_V |
| 12.0 | 324.675 | 655.18 | 70.106 | 1491.5 | 2685.4 | 1194.0 | 3.4967 | 5.4939 | 1.9972 | 1.526 30 | 14.264 |
| 12.2 | 325.942 | 651.84 | 71.684 | 1499.5 | 2681.0 | 1181.5 | 3.5097 | 5.4819 | 1.9722 | 1.534 13 | 13.950 |
| 12.4 | 327.194 | 648.49 | 73.287 | 1507.6 | 2676.6 | 1169.0 | 3.5226 | 5.4698 | 1.9472 | 1.542 05 | 13.645 |
| 12.6 | 328.429 | 645.13 | 74.914 | 1515.6 | 2672.0 | 1156.4 | 3.5354 | 5.4577 | 1.9223 | 1.550 09 | 13.349 |
| 12.8 | 329.649 | 641.75 | 76.566 | 1523.6 | 2667.4 | 1143.8 | 3.5481 | 5.4457 | 1.8975 | 1.558 23 | 13.061 |
| 13.0 | 330.854 | 638.37 | 78.245 | 1531.5 | 2662.7 | 1131.2 | 3.5608 | 5.4336 | 1.8728 | 1.566 49 | 12.780 |
| 13.2 | 332.044 | 634.97 | 79.950 | 1539.4 | 2657.9 | 1118.5 | 3.5734 | 5.4215 | 1.8481 | 1.574 87 | 12.508 |
| 13.4 | 333.220 | 631.56 | 81.685 | 1547.3 | 2653.0 | 1105.7 | 3.5859 | 5.4093 | 1.8234 | 1.583 38 | 12.242 |
| 13.6 | 334.382 | 628.13 | 83.448 | 1555.2 | 2648.0 | 1092.8 | 3.5984 | 5.3972 | 1.7988 | 1.592 02 | 11.983 |
| 13.8 | 335.531 | 624.69 | 85.243 | 1563.1 | 2643.0 | 1079.9 | 3.6108 | 5.3850 | 1.7742 | 1.600 81 | 11.731 |
| 14.0 | 336.666 | 621.22 | 87.069 | 1571.0 | 2637.9 | 1066.9 | 3.6232 | 5.3727 | 1.7495 | 1.609 74 | 11.485 |
| 14.2 | 337.789 | 617.73 | 88.928 | 1578.8 | 2632.6 | 1053.8 | 3.6355 | 5.3604 | 1.7249 | 1.618 83 | 11.245 |
| 14.4 | 338.899 | 614.22 | 90.822 | 1586.7 | 2627.3 | 1040.6 | 3.6478 | 5.3481 | 1.7002 | 1.628 09 | 11.011 |
| 14.6 | 339.996 | 610.68 | 92.752 | 1594.5 | 2621.9 | 1027.4 | 3.6601 | 5.3356 | 1.6756 | 1.637 52 | 10.781 |
| 14.8 | 341.082 | 607.11 | 94.720 | 1602.3 | 2616.3 | 1014.0 | 3.6723 | 5.3231 | 1.6508 | 1.647 14 | 10.557 |
| 15.0 | 342.155 | 603.52 | 96.727 | 1610.2 | 2610.7 | 1000.5 | 3.6846 | 5.3106 | 1.6260 | 1.656 95 | 10.338 |
| 15.2 | 343.217 | 599.89 | 98.776 | 1618.1 | 2605.0 | 986.9 | 3.6968 | 5.2979 | 1.6011 | 1.666 97 | 10.124 |
| 15.4 | 344.268 | 596.23 | 100.87 | 1625.9 | 2599.1 | 973.2 | 3.7090 | 5.2852 | 1.5762 | 1.677 22 | 9.9140 |
| 15.6 | 345.308 | 592.52 | 103.00 | 1633.8 | 2593.1 | 959.3 | 3.7212 | 5.2723 | 1.5511 | 1.687 70 | 9.7083 |
| 15.8 | 346.337 | 588.78 | 105.19 | 1641.7 | 2587.0 | 945.3 | 3.7335 | 5.2594 | 1.5259 | 1.698 43 | 9.5067 |
| 16.0 | 347.355 | 584.99 | 107.42 | 1649.7 | 2580.8 | 931.1 | 3.7457 | 5.2463 | 1.5006 | 1.709 44 | 9.3088 |
| 16.2 | 348.362 | 581.15 | 109.71 | 1657.7 | 2574.4 | 916.8 | 3.7580 | 5.2331 | 1.4750 | 1.720 73 | 9.1147 |
| 16.4 | 349.360 | 577.26 | 112.06 | 1665.7 | 2567.9 | 902.2 | 3.7704 | 5.2197 | 1.4494 | 1.732 33 | 8.9240 |
| 16.6 | 350.347 | 573.31 | 114.46 | 1673.7 | 2561.3 | 887.5 | 3.7827 | 5.2062 | 1.4235 | 1.744 27 | 8.7366 |
| 16.8 | 351.325 | 569.29 | 116.93 | 1681.9 | 2554.5 | 872.6 | 3.7952 | 5.1925 | 1.3974 | 1.756 57 | 8.5523 |
| 17.0 | 352.293 | 565.21 | 119.46 | 1690.0 | 2547.5 | 857.5 | 3.8077 | 5.1787 | 1.3710 | 1.769 26 | 8.3709 |
| 17.2 | 353.251 | 561.05 | 122.07 | 1698.3 | 2540.4 | 842.1 | 3.8203 | 5.1646 | 1.3443 | 1.782 37 | 8.1923 |
| 17.4 | 354.200 | 556.81 | 124.75 | 1706.6 | 2533.0 | 826.5 | 3.8330 | 5.1504 | 1.3174 | 1.795 93 | 8.0163 |
| 17.6 | 355.140 | 552.49 | 127.51 | 1715.0 | 2525.5 | 810.5 | 3.8458 | 5.1359 | 1.2901 | 1.810 00 | 7.8426 |
| 17.8 | 356.071 | 548.06 | 130.36 | 1723.5 | 2517.8 | 794.3 | 3.8587 | 5.1211 | 1.2624 | 1.824 60 | 7.6712 |
| 18.0 | 356.992 | 543.54 | 133.30 | 1732.1 | 2509.8 | 777.7 | 3.8718 | 5.1061 | 1.2342 | 1.839 80 | 7.5017 |
| 18.2 | 357.906 | 538.90 | 136.35 | 1740.8 | 2501.6 | 760.8 | 3.8851 | 5.0907 | 1.2056 | 1.855 64 | 7.3341 |
| 18.4 | 358.810 | 534.13 | 139.51 | 1749.7 | 2493.2 | 743.5 | 3.8985 | 5.0750 | 1.1765 | 1.872 19 | 7.1681 |
| 18.6 | 359.706 | 529.24 | 142.79 | 1758.7 | 2484.4 | 725.8 | 3.9121 | 5.0590 | 1.1468 | 1.889 51 | 7.0034 |
| 18.8 | 360.594 | 524.20 | 146.20 | 1767.8 | 2475.4 | 707.6 | 3.9260 | 5.0425 | 1.1165 | 1.907 67 | 6.8399 |
| 19.0 | 361.473 | 519.00 | 149.76 | 1777.2 | 2466.0 | 688.9 | 3.9401 | 5.0256 | 1.0855 | 1.926 77 | 6.6773 |
| 19.2 | 362.344 | 513.64 | 153.49 | 1786.7 | 2456.2 | 669.6 | 3.9545 | 5.0081 | 1.0536 | 1.946 89 | 6.5153 |
| 19.4 | 363.208 | 508.09 | 157.39 | 1796.4 | 2446.1 | 649.6 | 3.9692 | 4.9901 | 1.0208 | 1.968 14 | 6.3535 |
| 19.6 | 364.063 | 502.35 | 161.51 | 1806.4 | 2435.4 | 629.0 | 3.9843 | 4.9713 | 0.9871 | 1.990 64 | 6.1915 |
| 19.8 | 364.910 | 496.39 | 165.87 | 1816.7 | 2424.2 | 607.5 | 3.9997 | 4.9518 | 0.9521 | 2.0145 | 6.0290 |
| 20.0 | 365.749 | 490.19 | 170.50 | 1827.2 | 2412.3 | 585.1 | 4.0156 | 4.9314 | 0.9158 | 2.0400 | 5.8652 |
| 20.2 | 366.581 | 483.71 | 175.45 | 1838.1 | 2399.8 | 561.7 | 4.0320 | 4.9100 | 0.8780 | 2.0674 | 5.6996 |
| 20.4 | 367.404 | 476.90 | 180.79 | 1849.5 | 2386.3 | 536.9 | 4.0491 | 4.8872 | 0.8381 | 2.0969 | 5.5313 |
| 20.6 | 368.220 | 469.67 | 186.60 | 1861.4 | 2371.9 | 510.5 | 4.0670 | 4.8629 | 0.7959 | 2.1291 | 5.3590 |
| 20.8 | 369.027 | 461.91 | 193.00 | 1874.0 | 2356.1 | 482.1 | 4.0860 | 4.8367 | 0.7507 | 2.1649 | 5.1814 |
| 21.0 | 369.827 | 453.41 | 200.16 | 1887.6 | 2338.6 | 451.0 | 4.1064 | 4.8079 | 0.7015 | 2.2055 | 4.9961 |
| 21.2 | 370.619 | 443.83 | 208.33 | 1902.6 | 2318.9 | 416.3 | 4.1291 | 4.7758 | 0.6467 | 2.2531 | 4.8000 |
| 21.4 | 371.402 | 432.62 | 217.96 | 1919.7 | 2296.1 | 376.4 | 4.1550 | 4.7390 | 0.5839 | 2.3115 | 4.5880 |
| 21.6 | 372.178 | 418.75 | 229.84 | 1940.4 | 2268.6 | 328.2 | 4.1864 | 4.6950 | 0.5086 | 2.3880 | 4.3508 |
| 21.8 | 372.946 | 400.26 | 245.82 | 1967.4 | 2232.9 | 265.5 | 4.2274 | 4.6383 | 0.4109 | 2.4983 | 4.0680 |
| 22.0 | 373.705 | 369.77 | 274.16 | 2011.3 | 2173.1 | 161.7 | 4.2945 | 4.5446 | 0.2501 | 2.7044 | 3.6475 |
| 22.064 | 373.946 | 322.00 | 322.00 | 2084.3 | 2084.3 | 0. | 4.4070 | 4.4070 | 0. | 3.1056 | 3.1056 |

Table 3. Compressed Water and Superheated Steam

| 0.01 MPa ($t_s = 45.806\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 0.02 MPa ($t_s = 60.058\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 0.03 MPa ($t_s = 69.095\text{ }^{\circ}\text{C}$) | | | |
|---|---------------|--------------|------------------|-------------------------|---|---------------|--------------|------------------|-------------------------|---|---------------|--------------|------------------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.010 27 | 989.83 | 191.81 | 0.649 20 | $t_s(\text{L})$ | 1.017 16 | 983.13 | 251.42 | 0.832 02 | $t_s(\text{L})$ | 1.022 24 | 978.25 | 289.27 | 0.944 07 |
| 14 670. | 0.068 166 | 2583.9 | 8.1488 | $t_s(\text{V})$ | 7648.0 | 0.130 75 | 2608.9 | 7.9072 | $t_s(\text{V})$ | 5228.4 | 0.191 26 | 2624.5 | 7.7675 |
| <i>*1.000 20</i> | <i>999.80</i> | <i>-0.03</i> | <i>-0.000 15</i> | 0 | <i>1.000 20</i> | <i>999.80</i> | <i>-0.02</i> | <i>-0.000 15</i> | 0 | <i>1.000 19</i> | <i>999.81</i> | <i>-0.01</i> | <i>-0.000 15</i> |
| 1.000 08 | 999.92 | 21.03 | 0.076 25 | 5 | 1.000 07 | 999.93 | 21.04 | 0.076 25 | 5 | 1.000 07 | 999.93 | 21.05 | 0.076 25 |
| 1.000 34 | 999.66 | 42.03 | 0.151 09 | 10 | 1.000 34 | 999.66 | 42.04 | 0.151 08 | 10 | 1.000 33 | 999.67 | 42.05 | 0.151 08 |
| 1.000 94 | 999.06 | 62.99 | 0.224 46 | 15 | 1.000 94 | 999.06 | 63.00 | 0.224 46 | 15 | 1.000 93 | 999.07 | 63.01 | 0.224 46 |
| 1.001 84 | 998.17 | 83.92 | 0.296 48 | 20 | 1.001 83 | 998.17 | 83.93 | 0.296 48 | 20 | 1.001 83 | 998.17 | 83.94 | 0.296 48 |
| 1.003 00 | 997.01 | 104.84 | 0.367 22 | 25 | 1.003 00 | 997.01 | 104.84 | 0.367 22 | 25 | 1.002 99 | 997.02 | 104.85 | 0.367 22 |
| 1.004 41 | 995.61 | 125.74 | 0.436 75 | 30 | 1.004 41 | 995.61 | 125.75 | 0.436 75 | 30 | 1.004 40 | 995.62 | 125.76 | 0.436 75 |
| 1.006 04 | 993.99 | 146.64 | 0.505 13 | 35 | 1.006 04 | 994.00 | 146.65 | 0.505 13 | 35 | 1.006 03 | 994.00 | 146.66 | 0.505 12 |
| 1.007 89 | 992.18 | 167.54 | 0.572 40 | 40 | 1.007 88 | 992.18 | 167.54 | 0.572 40 | 40 | 1.007 88 | 992.19 | 167.55 | 0.572 39 |
| 1.009 92 | 990.17 | 188.44 | 0.638 61 | 45 | 1.009 92 | 990.18 | 188.44 | 0.638 61 | 45 | 1.009 92 | 990.18 | 188.45 | 0.638 61 |
| 14 867. | 0.067 263 | 2592.0 | 8.1741 | 50 | 1.012 15 | 988.00 | 209.35 | 0.703 81 | 50 | 1.012 14 | 988.00 | 209.36 | 0.703 80 |
| 15 101. | 0.066 220 | 2601.6 | 8.2036 | 55 | 1.014 55 | 985.66 | 230.26 | 0.768 02 | 55 | 1.014 55 | 985.66 | 230.27 | 0.768 02 |
| 15 335. | 0.065 211 | 2611.2 | 8.2326 | 60 | 1.017 13 | 983.16 | 251.18 | 0.831 29 | 60 | 1.017 12 | 983.16 | 251.19 | 0.831 29 |
| 15 568. | 0.064 233 | 2620.7 | 8.2611 | 65 | 7764.8 | 0.128 79 | 2618.6 | 7.9360 | 65 | 1.019 87 | 980.52 | 272.12 | 0.893 65 |
| 15 801. | 0.063 285 | 2630.3 | 8.2891 | 70 | 7882.6 | 0.126 86 | 2628.3 | 7.9646 | 70 | 5242.8 | 0.190 74 | 2626.3 | 7.7727 |
| 16 034. | 0.062 366 | 2639.8 | 8.3167 | 75 | 8000.2 | 0.125 00 | 2638.0 | 7.9927 | 75 | 5322.0 | 0.187 90 | 2636.2 | 7.8013 |
| 16 267. | 0.061 474 | 2649.3 | 8.3439 | 80 | 8117.6 | 0.123 19 | 2647.7 | 8.0202 | 80 | 5401.0 | 0.185 15 | 2646.0 | 7.8292 |
| 16 500. | 0.060 607 | 2658.9 | 8.3707 | 85 | 8234.8 | 0.121 44 | 2657.4 | 8.0474 | 85 | 5479.7 | 0.182 49 | 2655.8 | 7.8567 |
| 16 732. | 0.059 766 | 2668.4 | 8.3971 | 90 | 8351.8 | 0.119 73 | 2667.0 | 8.0741 | 90 | 5558.3 | 0.179 91 | 2665.5 | 7.8837 |
| 16 964. | 0.058 947 | 2677.9 | 8.4232 | 95 | 8468.7 | 0.118 08 | 2676.6 | 8.1004 | 95 | 5636.8 | 0.177 41 | 2675.3 | 7.9103 |
| 17 196. | 0.058 152 | 2687.5 | 8.4489 | 100 | 8585.5 | 0.116 48 | 2686.2 | 8.1263 | 100 | 5715.1 | 0.174 97 | 2685.0 | 7.9365 |
| 17 428. | 0.057 378 | 2697.0 | 8.4742 | 105 | 8702.2 | 0.114 91 | 2695.8 | 8.1519 | 105 | 5793.3 | 0.172 61 | 2694.7 | 7.9623 |
| 17 660. | 0.056 624 | 2706.5 | 8.4993 | 110 | 8818.7 | 0.113 40 | 2705.4 | 8.1771 | 110 | 5871.4 | 0.170 32 | 2704.3 | 7.9877 |
| 17 892. | 0.055 890 | 2716.1 | 8.5240 | 115 | 8935.2 | 0.111 92 | 2715.0 | 8.2020 | 115 | 5949.5 | 0.168 08 | 2714.0 | 8.0128 |
| 18 124. | 0.055 176 | 2725.6 | 8.5484 | 120 | 9051.6 | 0.110 48 | 2724.6 | 8.2266 | 120 | 6027.4 | 0.165 91 | 2723.7 | 8.0375 |
| 18 356. | 0.054 479 | 2735.2 | 8.5726 | 125 | 9167.9 | 0.109 08 | 2734.2 | 8.2509 | 125 | 6105.3 | 0.163 79 | 2733.3 | 8.0620 |
| 18 587. | 0.053 800 | 2744.7 | 8.5964 | 130 | 9284.1 | 0.107 71 | 2743.9 | 8.2749 | 130 | 6183.0 | 0.161 73 | 2743.0 | 8.0861 |
| 18 819. | 0.053 138 | 2754.3 | 8.6200 | 135 | 9400.3 | 0.106 38 | 2753.5 | 8.2986 | 135 | 6260.8 | 0.159 72 | 2752.6 | 8.1099 |
| 19 050. | 0.052 493 | 2763.9 | 8.6434 | 140 | 9516.4 | 0.105 08 | 2763.1 | 8.3220 | 140 | 6338.5 | 0.157 77 | 2762.3 | 8.1334 |
| 19 282. | 0.051 863 | 2773.4 | 8.6664 | 145 | 9632.5 | 0.103 81 | 2772.7 | 8.3451 | 145 | 6416.1 | 0.155 86 | 2772.0 | 8.1566 |
| 19 513. | 0.051 247 | 2783.0 | 8.6892 | 150 | 9748.6 | 0.102 58 | 2782.3 | 8.3680 | 150 | 6493.7 | 0.154 00 | 2781.6 | 8.1796 |
| 19 745. | 0.050 647 | 2792.6 | 8.7118 | 155 | 9864.6 | 0.101 37 | 2792.0 | 8.3907 | 155 | 6571.2 | 0.152 18 | 2791.3 | 8.2023 |
| 19 976. | 0.050 060 | 2802.3 | 8.7341 | 160 | 9980.5 | 0.100 20 | 2801.6 | 8.4131 | 160 | 6648.7 | 0.150 40 | 2801.0 | 8.2248 |
| 20 207. | 0.049 487 | 2811.9 | 8.7562 | 165 | 10 096. | 0.099 045 | 2811.3 | 8.4352 | 165 | 6726.2 | 0.148 67 | 2810.7 | 8.2470 |
| 20 438. | 0.048 927 | 2821.5 | 8.7781 | 170 | 10 212. | 0.097 921 | 2820.9 | 8.4572 | 170 | 6803.6 | 0.146 98 | 2820.4 | 8.2690 |
| 20 670. | 0.048 380 | 2831.2 | 8.7997 | 175 | 10 328. | 0.096 822 | 2830.6 | 8.4789 | 175 | 6881.1 | 0.145 33 | 2830.1 | 8.2908 |
| 20 901. | 0.047 845 | 2840.8 | 8.8212 | 180 | 10 444. | 0.095 748 | 2840.3 | 8.5004 | 180 | 6958.4 | 0.143 71 | 2839.8 | 8.3123 |
| 21 132. | 0.047 321 | 2850.5 | 8.8424 | 185 | 10 560. | 0.094 698 | 2850.0 | 8.5216 | 185 | 7035.8 | 0.142 13 | 2849.5 | 8.3337 |
| 21 363. | 0.046 809 | 2860.2 | 8.8634 | 190 | 10 676. | 0.093 671 | 2859.7 | 8.5427 | 190 | 7113.1 | 0.140 58 | 2859.2 | 8.3548 |
| 21 594. | 0.046 308 | 2869.9 | 8.8843 | 195 | 10 791. | 0.092 666 | 2869.4 | 8.5636 | 195 | 7190.5 | 0.139 07 | 2868.9 | 8.3757 |
| 21 826. | 0.045 818 | 2879.6 | 8.9049 | 200 | 10 907. | 0.091 682 | 2879.1 | 8.5843 | 200 | 7267.7 | 0.137 59 | 2878.7 | 8.3964 |
| 22 288. | 0.044 868 | 2899.1 | 8.9456 | 210 | 11 139. | 0.089 777 | 2898.6 | 8.6250 | 210 | 7422.3 | 0.134 73 | 2898.2 | 8.4372 |
| 22 750. | 0.043 956 | 2918.6 | 8.9856 | 220 | 11 370. | 0.087 950 | 2918.2 | 8.6651 | 220 | 7576.8 | 0.131 98 | 2917.8 | 8.4773 |
| 23 212. | 0.043 081 | 2938.1 | 9.0248 | 230 | 11 601. | 0.086 197 | 2937.8 | 8.7044 | 230 | 7731.2 | 0.129 35 | 2937.4 | 8.5167 |
| 23 674. | 0.042 240 | 2957.8 | 9.0635 | 240 | 11 833. | 0.084 512 | 2957.4 | 8.7431 | 240 | 7885.5 | 0.126 81 | 2957.1 | 8.5554 |
| 24 136. | 0.041 432 | 2977.4 | 9.1015 | 250 | 12 064. | 0.082 892 | 2977.1 | 8.7811 | 250 | 8039.9 | 0.124 38 | 2976.8 | 8.5935 |
| 24 598. | 0.040 654 | 2997.2 | 9.1388 | 260 | 12 295. | 0.081 333 | 2996.9 | 8.8185 | 260 | 8194.1 | 0.122 04 | 2996.6 | 8.6309 |
| 25 060. | 0.039 904 | 3017.0 | 9.1756 | 270 | 12 526. | 0.079 832 | 3016.7 | 8.8553 | 270 | 8348.4 | 0.119 78 | 3016.4 | 8.6678 |
| 25 522. | 0.039 182 | 3036.8 | 9.2118 | 280 | 12 757. | 0.078 386 | 3036.6 | 8.8916 | 280 | 8502.6 | 0.117 61 | 3036.3 | 8.7041 |
| 25 984. | 0.038 486 | 3056.8 | 9.2475 | 290 | 12 989. | 0.076 991 | 3056.5 | 8.9273 | 290 | 8656.8 | 0.115 52 | 3056.2 | 8.7398 |

*Values in italics indicate points where the thermodynamic equilibrium state would be a solid; the computed values are for the metastable liquid.

Table 3. Compressed Water and Superheated Steam (continued)

| 0.01 MPa ($t_s = 45.806\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.02 MPa ($t_s = 60.058\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.03 MPa ($t_s = 69.095\text{ }^{\circ}\text{C}$) | | | |
|---|-----------|--------|--------|-----------------------|---|-----------|--------|--------|-----------------------|---|-----------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 26 446. | 0.037 814 | 3076.7 | 9.2827 | 300 | 13 220. | 0.075 645 | 3076.5 | 8.9625 | 300 | 8811.0 | 0.113 49 | 3076.2 | 8.7750 |
| 26 907. | 0.037 164 | 3096.8 | 9.3173 | 310 | 13 451. | 0.074 346 | 3096.5 | 8.9972 | 310 | 8965.1 | 0.111 54 | 3096.3 | 8.8097 |
| 27 369. | 0.036 537 | 3116.9 | 9.3515 | 320 | 13 682. | 0.073 090 | 3116.7 | 9.0314 | 320 | 9119.2 | 0.109 66 | 3116.4 | 8.8439 |
| 27 831. | 0.035 931 | 3137.0 | 9.3852 | 330 | 13 913. | 0.071 876 | 3136.8 | 9.0651 | 330 | 9273.3 | 0.107 84 | 3136.6 | 8.8777 |
| 28 293. | 0.035 345 | 3157.3 | 9.4185 | 340 | 14 144. | 0.070 703 | 3157.1 | 9.0983 | 340 | 9427.4 | 0.106 07 | 3156.9 | 8.9110 |
| 28 755. | 0.034 777 | 3177.5 | 9.4513 | 350 | 14 375. | 0.069 566 | 3177.4 | 9.1312 | 350 | 9581.5 | 0.104 37 | 3177.2 | 8.9438 |
| 29 216. | 0.034 228 | 3197.9 | 9.4837 | 360 | 14 606. | 0.068 466 | 3197.7 | 9.1636 | 360 | 9735.6 | 0.102 72 | 3197.5 | 8.9763 |
| 29 678. | 0.033 695 | 3218.3 | 9.5157 | 370 | 14 837. | 0.067 400 | 3218.1 | 9.1956 | 370 | 9889.6 | 0.101 12 | 3218.0 | 9.0083 |
| 30 140. | 0.033 179 | 3238.8 | 9.5473 | 380 | 15 068. | 0.066 367 | 3238.6 | 9.2272 | 380 | 10 044. | 0.099 565 | 3238.5 | 9.0399 |
| 30 601. | 0.032 678 | 3259.3 | 9.5785 | 390 | 15 299. | 0.065 365 | 3259.2 | 9.2584 | 390 | 10 198. | 0.098 062 | 3259.0 | 9.0711 |
| 31 063. | 0.032 193 | 3279.9 | 9.6094 | 400 | 15 530. | 0.064 393 | 3279.8 | 9.2893 | 400 | 10 352. | 0.096 603 | 3279.6 | 9.1020 |
| 31 525. | 0.031 721 | 3300.6 | 9.6398 | 410 | 15 760. | 0.063 450 | 3300.5 | 9.3198 | 410 | 10 506. | 0.095 187 | 3300.3 | 9.1325 |
| 31 986. | 0.031 263 | 3321.4 | 9.6700 | 420 | 15 991. | 0.062 534 | 3321.2 | 9.3499 | 420 | 10 660. | 0.093 811 | 3321.1 | 9.1627 |
| 32 448. | 0.030 818 | 3342.2 | 9.6998 | 430 | 16 222. | 0.061 644 | 3342.0 | 9.3797 | 430 | 10 814. | 0.092 476 | 3341.9 | 9.1925 |
| 32 910. | 0.030 386 | 3363.0 | 9.7293 | 440 | 16 453. | 0.060 779 | 3362.9 | 9.4092 | 440 | 10 968. | 0.091 177 | 3362.8 | 9.2220 |
| 33 371. | 0.029 966 | 3384.0 | 9.7584 | 450 | 16 684. | 0.059 937 | 3383.9 | 9.4384 | 450 | 11 122. | 0.089 915 | 3383.7 | 9.2511 |
| 33 833. | 0.029 557 | 3405.0 | 9.7873 | 460 | 16 915. | 0.059 119 | 3404.9 | 9.4672 | 460 | 11 276. | 0.088 687 | 3404.7 | 9.2800 |
| 34 295. | 0.029 159 | 3426.1 | 9.8158 | 470 | 17 146. | 0.058 323 | 3425.9 | 9.4958 | 470 | 11 430. | 0.087 493 | 3425.8 | 9.3086 |
| 34 756. | 0.028 772 | 3447.2 | 9.8441 | 480 | 17 377. | 0.057 548 | 3447.1 | 9.5241 | 480 | 11 584. | 0.086 330 | 3447.0 | 9.3368 |
| 35 218. | 0.028 395 | 3468.4 | 9.8721 | 490 | 17 608. | 0.056 794 | 3468.3 | 9.5520 | 490 | 11 737. | 0.085 197 | 3468.2 | 9.3648 |
| 35 680. | 0.028 027 | 3489.7 | 9.8998 | 500 | 17 838. | 0.056 059 | 3489.6 | 9.5798 | 500 | 11 891. | 0.084 094 | 3489.5 | 9.3925 |
| 36 603. | 0.027 320 | 3532.5 | 9.9544 | 520 | 18 300. | 0.054 644 | 3532.4 | 9.6344 | 520 | 12 199. | 0.081 972 | 3532.3 | 9.4471 |
| 37 526. | 0.026 648 | 3575.5 | 10.008 | 540 | 18 762. | 0.053 300 | 3575.4 | 9.6880 | 540 | 12 507. | 0.079 954 | 3575.3 | 9.5007 |
| 38 449. | 0.026 008 | 3618.8 | 10.061 | 560 | 19 224. | 0.052 020 | 3618.7 | 9.7406 | 560 | 12 815. | 0.078 034 | 3618.6 | 9.5534 |
| 39 372. | 0.025 398 | 3662.4 | 10.112 | 580 | 19 685. | 0.050 800 | 3662.3 | 9.7923 | 580 | 13 123. | 0.076 203 | 3662.2 | 9.6051 |
| 40 296. | 0.024 817 | 3706.3 | 10.163 | 600 | 20 147. | 0.049 636 | 3706.2 | 9.8431 | 600 | 13 431. | 0.074 457 | 3706.1 | 9.6559 |
| 41 219. | 0.024 261 | 3750.4 | 10.213 | 620 | 20 609. | 0.048 524 | 3750.4 | 9.8932 | 620 | 13 738. | 0.072 789 | 3750.3 | 9.7060 |
| 42 142. | 0.023 729 | 3794.9 | 10.262 | 640 | 21 070. | 0.047 461 | 3794.8 | 9.9424 | 640 | 14 046. | 0.071 193 | 3794.7 | 9.7552 |
| 43 065. | 0.023 221 | 3839.6 | 10.311 | 660 | 21 532. | 0.046 443 | 3839.5 | 9.9908 | 660 | 14 354. | 0.069 667 | 3839.5 | 9.8036 |
| 43 988. | 0.022 733 | 3884.6 | 10.358 | 680 | 21 993. | 0.045 468 | 3884.5 | 10.039 | 680 | 14 662. | 0.068 204 | 3884.5 | 9.8514 |
| 44 911. | 0.022 266 | 3929.9 | 10.406 | 700 | 22 455. | 0.044 533 | 3929.8 | 10.086 | 700 | 14 970. | 0.066 802 | 3929.8 | 9.8984 |
| 45 834. | 0.021 818 | 3975.5 | 10.452 | 720 | 22 917. | 0.043 636 | 3975.4 | 10.132 | 720 | 15 277. | 0.065 456 | 3975.4 | 9.9448 |
| 46 758. | 0.021 387 | 4021.3 | 10.498 | 740 | 23 378. | 0.042 775 | 4021.3 | 10.178 | 740 | 15 585. | 0.064 164 | 4021.2 | 9.9905 |
| 47 681. | 0.020 973 | 4067.5 | 10.543 | 760 | 23 840. | 0.041 947 | 4067.4 | 10.223 | 760 | 15 893. | 0.062 921 | 4067.4 | 10.036 |
| 48 604. | 0.020 575 | 4113.9 | 10.587 | 780 | 24 301. | 0.041 150 | 4113.9 | 10.267 | 780 | 16 201. | 0.061 726 | 4113.8 | 10.080 |
| 49 527. | 0.020 191 | 4160.6 | 10.631 | 800 | 24 763. | 0.040 383 | 4160.6 | 10.311 | 800 | 16 508. | 0.060 575 | 4160.5 | 10.124 |
| 50 450. | 0.019 822 | 4207.6 | 10.675 | 820 | 25 225. | 0.039 644 | 4207.6 | 10.355 | 820 | 16 816. | 0.059 467 | 4207.5 | 10.167 |
| 51 373. | 0.019 465 | 4254.9 | 10.717 | 840 | 25 686. | 0.038 931 | 4254.8 | 10.397 | 840 | 17 124. | 0.058 398 | 4254.8 | 10.210 |
| 52 296. | 0.019 122 | 4302.4 | 10.760 | 860 | 26 148. | 0.038 244 | 4302.4 | 10.440 | 860 | 17 432. | 0.057 367 | 4302.3 | 10.253 |
| 53 219. | 0.018 790 | 4350.2 | 10.802 | 880 | 26 609. | 0.037 581 | 4350.2 | 10.482 | 880 | 17 739. | 0.056 372 | 4350.2 | 10.294 |
| 54 142. | 0.018 470 | 4398.3 | 10.843 | 900 | 27 071. | 0.036 940 | 4398.3 | 10.523 | 900 | 18 047. | 0.055 411 | 4398.3 | 10.336 |
| 55 065. | 0.018 160 | 4446.7 | 10.884 | 920 | 27 532. | 0.036 321 | 4446.7 | 10.564 | 920 | 18 355. | 0.054 482 | 4446.6 | 10.377 |
| 55 989. | 0.017 861 | 4495.3 | 10.924 | 940 | 27 994. | 0.035 722 | 4495.3 | 10.604 | 940 | 18 663. | 0.053 583 | 4495.3 | 10.417 |
| 56 912. | 0.017 571 | 4544.2 | 10.964 | 960 | 28 456. | 0.035 142 | 4544.2 | 10.644 | 960 | 18 970. | 0.052 714 | 4544.2 | 10.457 |
| 57 835. | 0.017 291 | 4593.4 | 11.004 | 980 | 28 917. | 0.034 582 | 4593.4 | 10.684 | 980 | 19 278. | 0.051 873 | 4593.3 | 10.497 |
| 58 758. | 0.017 019 | 4642.8 | 11.043 | 1000 | 29 379. | 0.034 038 | 4642.8 | 10.723 | 1000 | 19 586. | 0.051 058 | 4642.8 | 10.536 |
| 63 373. | 0.015 780 | 4893.7 | 11.233 | 1100 | 31 686. | 0.031 559 | 4893.7 | 10.913 | 1100 | 21 124. | 0.047 339 | 4893.7 | 10.725 |
| 67 988. | 0.014 708 | 5150.7 | 11.413 | 1200 | 33 994. | 0.029 417 | 5150.7 | 11.093 | 1200 | 22 663. | 0.044 125 | 5150.7 | 10.906 |
| 72 604. | 0.013 773 | 5413.4 | 11.586 | 1300 | 36 302. | 0.027 547 | 5413.4 | 11.266 | 1300 | 24 201. | 0.041 320 | 5413.4 | 11.079 |
| 77 219. | 0.012 950 | 5681.3 | 11.751 | 1400 | 38 610. | 0.025 900 | 5681.3 | 11.431 | 1400 | 25 740. | 0.038 850 | 5681.2 | 11.244 |
| 81 834. | 0.012 220 | 5954.0 | 11.909 | 1500 | 40 917. | 0.024 440 | 5954.0 | 11.589 | 1500 | 27 278. | 0.036 659 | 5953.9 | 11.402 |
| 86 450. | 0.011 567 | 6231.1 | 12.061 | 1600 | 43 225. | 0.023 135 | 6231.1 | 11.741 | 1600 | 28 817. | 0.034 702 | 6231.1 | 11.554 |
| 95 680. | 0.010 452 | 6797.2 | 12.348 | 1800 | 47 840. | 0.020 903 | 6797.2 | 12.028 | 1800 | 31 894. | 0.031 354 | 6797.2 | 11.841 |
| 104 910. | 0.009 532 | 7377.0 | 12.615 | 2000 | 52 455. | 0.019 064 | 7377.0 | 12.295 | 2000 | 34 970. | 0.028 596 | 7377.0 | 12.108 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.04 MPa ($t_s = 75.857\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 0.05 MPa ($t_s = 81.317\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 0.06 MPa ($t_s = 85.926\text{ }^{\circ}\text{C}$) | | | |
|---|----------|--------|-----------|-------------------------|---|----------|--------|-----------|-------------------------|---|----------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.026 38 | 974.30 | 317.62 | 1.0261 | $t_s(\text{L})$ | 1.029 93 | 970.94 | 340.54 | 1.0912 | $t_s(\text{L})$ | 1.033 07 | 967.99 | 359.91 | 1.1454 |
| 3993.0 | 0.250 44 | 2636.1 | 7.6690 | $t_s(\text{V})$ | 3240.0 | 0.308 64 | 2645.2 | 7.5930 | $t_s(\text{V})$ | 2731.7 | 0.366 07 | 2652.9 | 7.5311 |
| 1.000 19 | 999.81 | 0.00 | -0.000 15 | 0 | 1.000 18 | 999.82 | 0.01 | -0.000 15 | 0 | 1.000 18 | 999.82 | 0.02 | -0.000 15 |
| 1.000 06 | 999.94 | 21.06 | 0.076 25 | 5 | 1.000 06 | 999.94 | 21.07 | 0.076 25 | 5 | 1.000 05 | 999.95 | 21.08 | 0.076 25 |
| 1.000 33 | 999.67 | 42.06 | 0.151 08 | 10 | 1.000 32 | 999.68 | 42.07 | 0.151 08 | 10 | 1.000 32 | 999.68 | 42.08 | 0.151 08 |
| 1.000 93 | 999.07 | 63.02 | 0.224 46 | 15 | 1.000 92 | 999.08 | 63.03 | 0.224 46 | 15 | 1.000 92 | 999.08 | 63.04 | 0.224 45 |
| 1.001 82 | 998.18 | 83.95 | 0.296 48 | 20 | 1.001 82 | 998.18 | 83.96 | 0.296 47 | 20 | 1.001 82 | 998.19 | 83.97 | 0.296 47 |
| 1.002 99 | 997.02 | 104.86 | 0.367 22 | 25 | 1.002 98 | 997.02 | 104.87 | 0.367 21 | 25 | 1.002 98 | 997.03 | 104.88 | 0.367 21 |
| 1.004 40 | 995.62 | 125.77 | 0.436 74 | 30 | 1.004 39 | 995.63 | 125.78 | 0.436 74 | 30 | 1.004 39 | 995.63 | 125.78 | 0.436 74 |
| 1.006 03 | 994.01 | 146.66 | 0.505 12 | 35 | 1.006 03 | 994.01 | 146.67 | 0.505 11 | 35 | 1.006 02 | 994.02 | 146.68 | 0.505 11 |
| 1.007 87 | 992.19 | 167.56 | 0.572 39 | 40 | 1.007 87 | 992.19 | 167.57 | 0.572 39 | 40 | 1.007 86 | 992.20 | 167.58 | 0.572 38 |
| 1.009 91 | 990.19 | 188.46 | 0.638 60 | 45 | 1.009 91 | 990.19 | 188.47 | 0.638 60 | 45 | 1.009 90 | 990.19 | 188.48 | 0.638 59 |
| 1.012 14 | 988.01 | 209.37 | 0.703 80 | 50 | 1.012 13 | 988.01 | 209.37 | 0.703 79 | 50 | 1.012 13 | 988.02 | 209.38 | 0.703 79 |
| 1.014 54 | 985.67 | 230.28 | 0.768 01 | 55 | 1.014 54 | 985.67 | 230.29 | 0.768 01 | 55 | 1.014 53 | 985.68 | 230.29 | 0.768 00 |
| 1.017 12 | 983.17 | 251.20 | 0.831 28 | 60 | 1.017 11 | 983.17 | 251.21 | 0.831 28 | 60 | 1.017 11 | 983.18 | 251.21 | 0.831 27 |
| 1.019 86 | 980.52 | 272.13 | 0.893 64 | 65 | 1.019 86 | 980.53 | 272.14 | 0.893 64 | 65 | 1.019 85 | 980.53 | 272.14 | 0.893 63 |
| 1.022 77 | 977.74 | 293.07 | 0.955 13 | 70 | 1.022 76 | 977.74 | 293.08 | 0.955 12 | 70 | 1.022 76 | 977.75 | 293.09 | 0.955 12 |
| 1.025 84 | 974.82 | 314.03 | 1.0158 | 75 | 1.025 83 | 974.82 | 314.04 | 1.0158 | 75 | 1.025 83 | 974.82 | 314.05 | 1.0158 |
| 4042.5 | 0.247 37 | 2644.3 | 7.6925 | 80 | 1.029 05 | 971.77 | 335.01 | 1.0756 | 80 | 1.029 05 | 971.77 | 335.02 | 1.0756 |
| 4102.1 | 0.243 78 | 2654.2 | 7.7204 | 85 | 3275.4 | 0.305 30 | 2652.6 | 7.6138 | 85 | 1.032 43 | 968.59 | 356.02 | 1.1346 |
| 4161.5 | 0.240 30 | 2664.1 | 7.7477 | 90 | 3323.3 | 0.300 90 | 2662.6 | 7.6415 | 90 | 2764.5 | 0.361 73 | 2661.1 | 7.5540 |
| 4220.8 | 0.236 92 | 2673.9 | 7.7746 | 95 | 3371.1 | 0.296 64 | 2672.5 | 7.6686 | 95 | 2804.6 | 0.356 56 | 2671.1 | 7.5814 |
| 4279.9 | 0.233 65 | 2683.7 | 7.8010 | 100 | 3418.7 | 0.292 51 | 2682.4 | 7.6953 | 100 | 2844.5 | 0.351 56 | 2681.1 | 7.6084 |
| 4338.9 | 0.230 47 | 2693.5 | 7.8270 | 105 | 3466.1 | 0.288 50 | 2692.3 | 7.7215 | 105 | 2884.3 | 0.346 70 | 2691.1 | 7.6348 |
| 4397.8 | 0.227 39 | 2703.2 | 7.8527 | 110 | 3513.5 | 0.284 62 | 2702.1 | 7.7474 | 110 | 2924.0 | 0.342 00 | 2701.0 | 7.6609 |
| 4456.6 | 0.224 39 | 2713.0 | 7.8779 | 115 | 3560.8 | 0.280 84 | 2711.9 | 7.7728 | 115 | 2963.6 | 0.337 43 | 2710.9 | 7.6865 |
| 4515.3 | 0.221 47 | 2722.7 | 7.9028 | 120 | 3608.0 | 0.277 16 | 2721.7 | 7.7978 | 120 | 3003.1 | 0.332 99 | 2720.7 | 7.7117 |
| 4573.9 | 0.218 63 | 2732.4 | 7.9274 | 125 | 3655.1 | 0.273 59 | 2731.5 | 7.8225 | 125 | 3042.5 | 0.328 68 | 2730.5 | 7.7365 |
| 4632.5 | 0.215 87 | 2742.1 | 7.9516 | 130 | 3702.1 | 0.270 12 | 2741.2 | 7.8469 | 130 | 3081.9 | 0.324 48 | 2740.3 | 7.7610 |
| 4691.0 | 0.213 17 | 2751.8 | 7.9755 | 135 | 3749.1 | 0.266 73 | 2751.0 | 7.8710 | 135 | 3121.2 | 0.320 39 | 2750.1 | 7.7852 |
| 4749.5 | 0.210 55 | 2761.5 | 7.9992 | 140 | 3796.0 | 0.263 43 | 2760.7 | 7.8947 | 140 | 3160.4 | 0.316 42 | 2759.9 | 7.8090 |
| 4807.9 | 0.207 99 | 2771.2 | 8.0225 | 145 | 3842.9 | 0.260 22 | 2770.5 | 7.9181 | 145 | 3199.6 | 0.312 54 | 2769.7 | 7.8326 |
| 4866.2 | 0.205 50 | 2780.9 | 8.0456 | 150 | 3889.7 | 0.257 09 | 2780.2 | 7.9413 | 150 | 3238.7 | 0.308 76 | 2779.5 | 7.8558 |
| 4924.5 | 0.203 06 | 2790.6 | 8.0684 | 155 | 3936.5 | 0.254 03 | 2790.0 | 7.9642 | 155 | 3277.8 | 0.305 08 | 2789.3 | 7.8788 |
| 4982.8 | 0.200 69 | 2800.3 | 8.0909 | 160 | 3983.3 | 0.251 05 | 2799.7 | 7.9868 | 160 | 3316.9 | 0.301 49 | 2799.0 | 7.9015 |
| 5041.1 | 0.198 37 | 2810.1 | 8.1132 | 165 | 4030.0 | 0.248 14 | 2809.4 | 8.0091 | 165 | 3355.9 | 0.297 98 | 2808.8 | 7.9239 |
| 5099.3 | 0.196 11 | 2819.8 | 8.1353 | 170 | 4076.6 | 0.245 30 | 2819.2 | 8.0312 | 170 | 3394.9 | 0.294 56 | 2818.6 | 7.9461 |
| 5157.5 | 0.193 89 | 2829.5 | 8.1571 | 175 | 4123.3 | 0.242 52 | 2828.9 | 8.0531 | 175 | 3433.8 | 0.291 22 | 2828.4 | 7.9680 |
| 5215.6 | 0.191 73 | 2839.2 | 8.1787 | 180 | 4169.9 | 0.239 81 | 2838.7 | 8.0748 | 180 | 3472.8 | 0.287 95 | 2838.1 | 7.9897 |
| 5273.7 | 0.189 62 | 2849.0 | 8.2000 | 185 | 4216.5 | 0.237 16 | 2848.4 | 8.0962 | 185 | 3511.7 | 0.284 76 | 2847.9 | 8.0112 |
| 5331.9 | 0.187 55 | 2858.7 | 8.2212 | 190 | 4263.1 | 0.234 57 | 2858.2 | 8.1174 | 190 | 3550.6 | 0.281 65 | 2857.7 | 8.0324 |
| 5389.9 | 0.185 53 | 2868.5 | 8.2421 | 195 | 4309.6 | 0.232 04 | 2868.0 | 8.1384 | 195 | 3589.4 | 0.278 60 | 2867.5 | 8.0535 |
| 5448.0 | 0.183 55 | 2878.2 | 8.2629 | 200 | 4356.2 | 0.229 56 | 2877.8 | 8.1592 | 200 | 3628.3 | 0.275 61 | 2877.3 | 8.0743 |
| 5506.1 | 0.181 62 | 2887.8 | 8.2838 | 205 | 4402.8 | 0.227 14 | 2887.4 | 8.1801 | 205 | 3667.1 | 0.272 74 | 2886.9 | 8.0952 |
| 5564.1 | 0.179 72 | 2897.8 | 8.3038 | 210 | 4449.2 | 0.224 76 | 2897.4 | 8.2001 | 210 | 3705.9 | 0.269 84 | 2896.9 | 8.1153 |
| 5622.1 | 0.177 84 | 2907.8 | 8.3240 | 215 | 4495.6 | 0.222 43 | 2907.4 | 8.2201 | 215 | 3744.7 | 0.267 01 | 2906.9 | 8.1354 |
| 5680.1 | 0.176 05 | 2917.4 | 8.3440 | 220 | 4542.1 | 0.220 16 | 2917.0 | 8.2404 | 220 | 3783.4 | 0.264 31 | 2916.6 | 8.1556 |
| 5738.1 | 0.174 27 | 2927.0 | 8.3643 | 225 | 4588.5 | 0.217 93 | 2926.7 | 8.2608 | 225 | 3822.1 | 0.261 61 | 2916.6 | 8.1757 |
| 5796.1 | 0.172 53 | 2937.0 | 8.3834 | 230 | 4635.0 | 0.215 75 | 2936.7 | 8.2799 | 230 | 3860.9 | 0.259 00 | 2936.3 | 8.1952 |
| 5854.1 | 0.170 84 | 2947.0 | 8.4027 | 235 | 4681.4 | 0.213 61 | 2946.7 | 8.2990 | 235 | 3899.6 | 0.256 39 | 2936.3 | 8.2152 |
| 5912.0 | 0.169 15 | 2956.7 | 8.4222 | 240 | 4727.8 | 0.211 51 | 2956.4 | 8.3187 | 240 | 3938.4 | 0.253 91 | 2956.0 | 8.2340 |
| 6027.8 | 0.165 90 | 2976.5 | 8.4603 | 250 | 4820.6 | 0.207 44 | 2976.1 | 8.3568 | 250 | 4015.8 | 0.249 02 | 2975.8 | 8.2722 |
| 6143.7 | 0.162 77 | 2996.3 | 8.4977 | 260 | 4913.4 | 0.203 53 | 2996.0 | 8.3943 | 260 | 4093.2 | 0.244 31 | 2995.7 | 8.3098 |
| 6259.4 | 0.159 76 | 3016.1 | 8.5346 | 270 | 5006.1 | 0.199 76 | 3015.8 | 8.4313 | 270 | 4170.5 | 0.239 78 | 3015.5 | 8.3467 |
| 6375.2 | 0.156 86 | 3036.0 | 8.5709 | 280 | 5098.8 | 0.196 13 | 3035.8 | 8.4676 | 280 | 4247.8 | 0.235 42 | 3035.5 | 8.3831 |
| 6490.9 | 0.154 06 | 3056.0 | 8.6067 | 290 | 5191.4 | 0.192 63 | 3055.7 | 8.5034 | 290 | 4325.1 | 0.231 21 | 3055.5 | 8.4189 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.04 MPa ($t_s = 75.857^\circ\text{C}$) | | | | | $t, ^\circ\text{C}$ | 0.05 MPa ($t_s = 81.317^\circ\text{C}$) | | | | | $t, ^\circ\text{C}$ | 0.06 MPa ($t_s = 85.926^\circ\text{C}$) | | | | |
|---|-----------|--------|--------|--|---------------------|---|-----------|--------|--------|--|---------------------|---|-----------|--------|--------|--|
| v | ρ | h | s | | | v | ρ | h | s | | | v | ρ | h | s | |
| 6606.6 | 0.151 36 | 3076.0 | 8.6419 | | 300 | 5284.0 | 0.189 25 | 3075.8 | 8.5386 | | 300 | 4402.3 | 0.227 15 | 3075.5 | 8.4542 | |
| 6722.3 | 0.148 76 | 3096.1 | 8.6767 | | 310 | 5376.7 | 0.185 99 | 3095.8 | 8.5734 | | 310 | 4479.5 | 0.223 24 | 3095.6 | 8.4889 | |
| 6838.0 | 0.146 24 | 3116.2 | 8.7109 | | 320 | 5469.2 | 0.182 84 | 3116.0 | 8.6076 | | 320 | 4556.7 | 0.219 45 | 3115.8 | 8.5232 | |
| 6953.6 | 0.143 81 | 3136.4 | 8.7447 | | 330 | 5561.8 | 0.179 80 | 3136.2 | 8.6414 | | 330 | 4633.9 | 0.215 80 | 3136.0 | 8.5570 | |
| 7069.3 | 0.141 46 | 3156.7 | 8.7780 | | 340 | 5654.4 | 0.176 85 | 3156.5 | 8.6747 | | 340 | 4711.1 | 0.212 26 | 3156.3 | 8.5904 | |
| 7184.9 | 0.139 18 | 3177.0 | 8.8108 | | 350 | 5746.9 | 0.174 01 | 3176.8 | 8.7076 | | 350 | 4788.3 | 0.208 84 | 3176.6 | 8.6232 | |
| 7300.5 | 0.136 98 | 3197.4 | 8.8433 | | 360 | 5839.4 | 0.171 25 | 3197.2 | 8.7401 | | 360 | 4865.4 | 0.205 53 | 3197.0 | 8.6557 | |
| 7416.1 | 0.134 84 | 3217.8 | 8.8753 | | 370 | 5931.9 | 0.168 58 | 3217.6 | 8.7721 | | 370 | 4942.5 | 0.202 33 | 3217.4 | 8.6878 | |
| 7531.6 | 0.132 77 | 3238.3 | 8.9069 | | 380 | 6024.4 | 0.165 99 | 3238.1 | 8.8038 | | 380 | 5019.6 | 0.199 22 | 3238.0 | 8.7194 | |
| 7647.2 | 0.130 77 | 3258.9 | 8.9382 | | 390 | 6116.9 | 0.163 48 | 3258.7 | 8.8350 | | 390 | 5096.7 | 0.196 20 | 3258.5 | 8.7507 | |
| 7762.8 | 0.128 82 | 3279.5 | 8.9691 | | 400 | 6209.4 | 0.161 05 | 3279.3 | 8.8659 | | 400 | 5173.8 | 0.193 28 | 3279.2 | 8.7816 | |
| 7878.3 | 0.126 93 | 3300.2 | 8.9996 | | 410 | 6301.9 | 0.158 68 | 3300.0 | 8.8964 | | 410 | 5250.9 | 0.190 44 | 3299.9 | 8.8121 | |
| 7993.8 | 0.125 10 | 3320.9 | 9.0297 | | 420 | 6394.3 | 0.156 39 | 3320.8 | 8.9266 | | 420 | 5328.0 | 0.187 69 | 3320.7 | 8.8423 | |
| 8109.4 | 0.123 31 | 3341.8 | 9.0596 | | 430 | 6486.8 | 0.154 16 | 3341.6 | 8.9564 | | 430 | 5405.1 | 0.185 01 | 3341.5 | 8.8721 | |
| 8224.9 | 0.121 58 | 3362.6 | 9.0891 | | 440 | 6579.2 | 0.151 99 | 3362.5 | 8.9859 | | 440 | 5482.1 | 0.182 41 | 3362.4 | 8.9017 | |
| 8340.4 | 0.119 90 | 3383.6 | 9.1182 | | 450 | 6671.7 | 0.149 89 | 3383.5 | 9.0151 | | 450 | 5559.2 | 0.179 88 | 3383.3 | 8.9308 | |
| 8455.9 | 0.118 26 | 3404.6 | 9.1471 | | 460 | 6764.1 | 0.147 84 | 3404.5 | 9.0440 | | 460 | 5636.2 | 0.177 42 | 3404.4 | 8.9597 | |
| 8571.4 | 0.116 67 | 3425.7 | 9.1757 | | 470 | 6856.5 | 0.145 85 | 3425.6 | 9.0726 | | 470 | 5713.3 | 0.175 03 | 3425.5 | 8.9883 | |
| 8686.9 | 0.115 12 | 3446.9 | 9.2039 | | 480 | 6948.9 | 0.143 91 | 3446.7 | 9.1008 | | 480 | 5790.3 | 0.172 70 | 3446.6 | 9.0166 | |
| 8802.4 | 0.113 61 | 3468.1 | 9.2319 | | 490 | 7041.4 | 0.142 02 | 3468.0 | 9.1288 | | 490 | 5867.3 | 0.170 44 | 3467.9 | 9.0446 | |
| 8917.9 | 0.112 13 | 3489.4 | 9.2596 | | 500 | 7133.8 | 0.140 18 | 3489.3 | 9.1566 | | 500 | 5944.4 | 0.168 23 | 3489.2 | 9.0723 | |
| 9148.8 | 0.109 30 | 3532.2 | 9.3143 | | 520 | 7318.6 | 0.136 64 | 3532.1 | 9.2112 | | 520 | 6098.4 | 0.163 98 | 3532.0 | 9.1270 | |
| 9379.8 | 0.106 61 | 3575.2 | 9.3679 | | 540 | 7503.4 | 0.133 27 | 3575.1 | 9.2648 | | 540 | 6252.4 | 0.159 94 | 3575.0 | 9.1806 | |
| 9610.7 | 0.104 05 | 3618.5 | 9.4205 | | 560 | 7688.1 | 0.130 07 | 3618.5 | 9.3175 | | 560 | 6406.4 | 0.156 09 | 3618.4 | 9.2332 | |
| 9841.6 | 0.101 61 | 3662.2 | 9.4723 | | 580 | 7872.9 | 0.127 02 | 3662.1 | 9.3692 | | 580 | 6560.4 | 0.152 43 | 3662.0 | 9.2850 | |
| 10 073. | 0.099 280 | 3706.0 | 9.5231 | | 600 | 8057.6 | 0.124 11 | 3706.0 | 9.4201 | | 600 | 6714.4 | 0.148 93 | 3705.9 | 9.3358 | |
| 10 303. | 0.097 055 | 3750.2 | 9.5731 | | 620 | 8242.4 | 0.121 32 | 3750.1 | 9.4701 | | 620 | 6868.4 | 0.145 60 | 3750.1 | 9.3859 | |
| 10 534. | 0.094 928 | 3794.7 | 9.6223 | | 640 | 8427.1 | 0.118 66 | 3794.6 | 9.5193 | | 640 | 7022.3 | 0.142 40 | 3794.5 | 9.4351 | |
| 10 765. | 0.092 892 | 3839.4 | 9.6708 | | 660 | 8611.8 | 0.116 12 | 3839.3 | 9.5678 | | 660 | 7176.3 | 0.139 35 | 3839.3 | 9.4836 | |
| 10 996. | 0.090 942 | 3884.4 | 9.7185 | | 680 | 8796.5 | 0.113 68 | 3884.4 | 9.6155 | | 680 | 7330.2 | 0.136 42 | 3884.3 | 9.5313 | |
| 11 227. | 0.089 072 | 3929.7 | 9.7656 | | 700 | 8981.2 | 0.111 34 | 3929.7 | 9.6625 | | 700 | 7484.1 | 0.133 62 | 3929.6 | 9.5784 | |
| 11 458. | 0.087 277 | 3975.3 | 9.8119 | | 720 | 9165.9 | 0.109 10 | 3975.3 | 9.7089 | | 720 | 7638.1 | 0.130 92 | 3975.2 | 9.6247 | |
| 11 689. | 0.085 554 | 4021.2 | 9.8577 | | 740 | 9350.6 | 0.106 94 | 4021.1 | 9.7546 | | 740 | 7792.0 | 0.128 34 | 4021.1 | 9.6705 | |
| 11 919. | 0.083 897 | 4067.3 | 9.9028 | | 760 | 9535.3 | 0.104 87 | 4067.3 | 9.7998 | | 760 | 7945.9 | 0.125 85 | 4067.2 | 9.7156 | |
| 12 150. | 0.082 303 | 4113.8 | 9.9473 | | 780 | 9720.0 | 0.102 88 | 4113.7 | 9.8443 | | 780 | 8099.8 | 0.123 46 | 4113.7 | 9.7601 | |
| 12 381. | 0.080 769 | 4160.5 | 9.9912 | | 800 | 9904.7 | 0.100 96 | 4160.4 | 9.8882 | | 800 | 8253.7 | 0.121 16 | 4160.4 | 9.8040 | |
| 12 612. | 0.079 290 | 4207.5 | 10.035 | | 820 | 10 089. | 0.099 115 | 4207.4 | 9.9316 | | 820 | 8407.6 | 0.118 94 | 4207.4 | 9.8474 | |
| 12 843. | 0.077 865 | 4254.8 | 10.077 | | 840 | 10 274. | 0.097 333 | 4254.7 | 9.9745 | | 840 | 8561.5 | 0.116 80 | 4254.7 | 9.8903 | |
| 13 074. | 0.076 490 | 4302.3 | 10.120 | | 860 | 10 459. | 0.095 614 | 4302.3 | 10.017 | | 860 | 8715.4 | 0.114 74 | 4302.2 | 9.9326 | |
| 13 304. | 0.075 163 | 4350.1 | 10.162 | | 880 | 10 643. | 0.093 955 | 4350.1 | 10.059 | | 880 | 8869.3 | 0.112 75 | 4350.1 | 9.9745 | |
| 13 535. | 0.073 882 | 4398.2 | 10.203 | | 900 | 10 828. | 0.092 353 | 4398.2 | 10.100 | | 900 | 9023.2 | 0.110 83 | 4398.2 | 10.016 | |
| 13 766. | 0.072 643 | 4446.6 | 10.244 | | 920 | 11 013. | 0.090 805 | 4446.6 | 10.141 | | 920 | 9177.1 | 0.108 97 | 4446.5 | 10.057 | |
| 13 997. | 0.071 445 | 4495.2 | 10.284 | | 940 | 11 197. | 0.089 307 | 4495.2 | 10.181 | | 940 | 9331.0 | 0.107 17 | 4495.2 | 10.097 | |
| 14 228. | 0.070 286 | 4544.1 | 10.324 | | 960 | 11 382. | 0.087 858 | 4544.1 | 10.221 | | 960 | 9484.9 | 0.105 43 | 4544.1 | 10.137 | |
| 14 458. | 0.069 164 | 4593.3 | 10.364 | | 980 | 11 567. | 0.086 456 | 4593.3 | 10.261 | | 980 | 9638.8 | 0.103 75 | 4593.2 | 10.177 | |
| 14 689. | 0.068 077 | 4642.7 | 10.403 | | 1000 | 11 751. | 0.085 097 | 4642.7 | 10.300 | | 1000 | 9792.7 | 0.102 12 | 4642.7 | 10.216 | |
| 15 843. | 0.063 119 | 4893.7 | 10.593 | | 1100 | 12 674. | 0.078 899 | 4893.7 | 10.490 | | 1100 | 10 562. | 0.094 679 | 4893.6 | 10.406 | |
| 16 997. | 0.058 834 | 5150.7 | 10.773 | | 1200 | 13 598. | 0.073 542 | 5150.7 | 10.670 | | 1200 | 11 331. | 0.088 251 | 5150.6 | 10.586 | |
| 18 151. | 0.055 093 | 5413.3 | 10.946 | | 1300 | 14 521. | 0.068 867 | 5413.3 | 10.843 | | 1300 | 12 101. | 0.082 640 | 5413.3 | 10.759 | |
| 19 305. | 0.051 800 | 5681.2 | 11.111 | | 1400 | 15 444. | 0.064 750 | 5681.2 | 11.008 | | 1400 | 12 870. | 0.077 700 | 5681.2 | 10.924 | |
| 20 459. | 0.048 879 | 5953.9 | 11.269 | | 1500 | 16 367. | 0.061 098 | 5953.9 | 11.166 | | 1500 | 13 639. | 0.073 318 | 5953.9 | 11.082 | |
| 21 613. | 0.046 269 | 6231.1 | 11.421 | | 1600 | 17 290. | 0.057 836 | 6231.1 | 11.318 | | 1600 | 14 409. | 0.069 403 | 6231.0 | 11.234 | |
| 23 920. | 0.041 806 | 6797.2 | 11.708 | | 1800 | 19 136. | 0.052 257 | 6797.2 | 11.605 | | 1800 | 15 947. | 0.062 708 | 6797.2 | 11.521 | |
| 26 228. | 0.038 127 | 7377.0 | 11.975 | | 2000 | 20 982. | 0.047 659 | 7377.0 | 11.872 | | 2000 | 17 485. | 0.057 190 | 7377.0 | 11.788 | |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.07 MPa ($t_s = 89.932\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.08 MPa ($t_s = 93.486\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.09 MPa ($t_s = 96.687\text{ }^{\circ}\text{C}$) | | | |
|---|----------|--------|-----------|-----------------------|---|----------|--------|-----------|-----------------------|---|----------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.035 90 | 965.34 | 376.75 | 1.1921 | $t_s(\text{L})$ | 1.038 50 | 962.93 | 391.71 | 1.2330 | $t_s(\text{L})$ | 1.040 91 | 960.70 | 405.20 | 1.2696 |
| 2364.8 | 0.422 87 | 2659.4 | 7.4790 | $t_s(\text{V})$ | 2087.1 | 0.479 14 | 2665.2 | 7.4339 | $t_s(\text{V})$ | 1869.4 | 0.534 94 | 2670.3 | 7.3943 |
| 1.000 17 | 999.83 | 0.03 | -0.000 15 | 0 | 1.000 17 | 999.83 | 0.04 | -0.000 15 | 0 | 1.000 16 | 999.84 | 0.05 | -0.000 15 |
| 1.000 05 | 999.95 | 21.09 | 0.076 25 | 5 | 1.000 04 | 999.96 | 21.10 | 0.076 25 | 5 | 1.000 04 | 999.96 | 21.11 | 0.076 25 |
| 1.000 31 | 999.69 | 42.09 | 0.151 08 | 10 | 1.000 31 | 999.69 | 42.10 | 0.151 08 | 10 | 1.000 30 | 999.70 | 42.11 | 0.151 08 |
| 1.000 91 | 999.09 | 63.05 | 0.224 45 | 15 | 1.000 91 | 999.09 | 63.06 | 0.224 45 | 15 | 1.000 90 | 999.10 | 63.07 | 0.224 45 |
| 1.001 81 | 998.19 | 83.98 | 0.296 47 | 20 | 1.001 81 | 998.20 | 83.99 | 0.296 47 | 20 | 1.001 80 | 998.20 | 84.00 | 0.296 47 |
| 1.002 98 | 997.03 | 104.89 | 0.367 21 | 25 | 1.002 97 | 997.04 | 104.90 | 0.367 21 | 25 | 1.002 97 | 997.04 | 104.91 | 0.367 20 |
| 1.004 38 | 995.64 | 125.79 | 0.436 73 | 30 | 1.004 38 | 995.64 | 125.80 | 0.436 73 | 30 | 1.004 37 | 995.64 | 125.81 | 0.436 73 |
| 1.006 02 | 994.02 | 146.69 | 0.505 11 | 35 | 1.006 01 | 994.02 | 146.70 | 0.505 10 | 35 | 1.006 01 | 994.03 | 146.71 | 0.505 10 |
| 1.007 86 | 992.20 | 167.59 | 0.572 38 | 40 | 1.007 85 | 992.21 | 167.60 | 0.572 37 | 40 | 1.007 85 | 992.21 | 167.61 | 0.572 37 |
| 1.009 90 | 990.20 | 188.49 | 0.638 59 | 45 | 1.009 89 | 990.20 | 188.50 | 0.638 58 | 45 | 1.009 89 | 990.21 | 188.51 | 0.638 58 |
| 1.012 12 | 988.02 | 209.39 | 0.703 78 | 50 | 1.012 12 | 988.03 | 209.40 | 0.703 78 | 50 | 1.012 11 | 988.03 | 209.41 | 0.703 77 |
| 1.014 53 | 985.68 | 230.30 | 0.768 00 | 55 | 1.014 52 | 985.68 | 230.31 | 0.767 99 | 55 | 1.014 52 | 985.69 | 230.32 | 0.767 99 |
| 1.017 11 | 983.18 | 251.22 | 0.831 27 | 60 | 1.017 10 | 983.19 | 251.23 | 0.831 26 | 60 | 1.017 10 | 983.19 | 251.24 | 0.831 26 |
| 1.019 85 | 980.54 | 272.15 | 0.893 63 | 65 | 1.019 84 | 980.54 | 272.16 | 0.893 62 | 65 | 1.019 84 | 980.55 | 272.17 | 0.893 62 |
| 1.022 76 | 977.75 | 293.10 | 0.955 11 | 70 | 1.022 75 | 977.76 | 293.11 | 0.955 10 | 70 | 1.022 75 | 977.76 | 293.11 | 0.955 10 |
| 1.025 82 | 974.83 | 314.06 | 1.0157 | 75 | 1.025 82 | 974.83 | 314.06 | 1.0157 | 75 | 1.025 81 | 974.84 | 314.07 | 1.0157 |
| 1.029 04 | 971.78 | 335.03 | 1.0756 | 80 | 1.029 04 | 971.78 | 335.04 | 1.0756 | 80 | 1.029 03 | 971.79 | 335.05 | 1.0756 |
| 1.032 42 | 968.60 | 356.02 | 1.1346 | 85 | 1.032 42 | 968.60 | 356.03 | 1.1346 | 85 | 1.032 41 | 968.61 | 356.04 | 1.1346 |
| 2365.3 | 0.422 79 | 2659.6 | 7.4794 | 90 | 1.035 95 | 965.30 | 377.05 | 1.1929 | 90 | 1.035 94 | 965.30 | 377.05 | 1.1929 |
| 2399.9 | 0.416 69 | 2669.7 | 7.5072 | 95 | 2096.3 | 0.477 03 | 2668.3 | 7.4424 | 95 | 1.039 63 | 961.88 | 398.09 | 1.2504 |
| 2434.3 | 0.410 79 | 2679.8 | 7.5344 | 100 | 2126.7 | 0.470 22 | 2678.5 | 7.4699 | 100 | 1887.4 | 0.529 84 | 2677.1 | 7.4126 |
| 2468.7 | 0.405 08 | 2689.8 | 7.5611 | 105 | 2156.9 | 0.463 63 | 2688.6 | 7.4969 | 105 | 1914.4 | 0.522 36 | 2687.4 | 7.4399 |
| 2502.9 | 0.399 54 | 2699.8 | 7.5874 | 110 | 2187.0 | 0.457 25 | 2698.7 | 7.5233 | 110 | 1941.3 | 0.515 11 | 2697.5 | 7.4665 |
| 2537.0 | 0.394 17 | 2709.8 | 7.6132 | 115 | 2217.0 | 0.451 06 | 2708.7 | 7.5493 | 115 | 1968.1 | 0.508 10 | 2707.6 | 7.4927 |
| 2571.0 | 0.388 95 | 2719.7 | 7.6385 | 120 | 2246.9 | 0.445 05 | 2718.7 | 7.5749 | 120 | 1994.8 | 0.501 29 | 2717.7 | 7.5185 |
| 2604.9 | 0.383 89 | 2729.6 | 7.6635 | 125 | 2276.8 | 0.439 22 | 2728.6 | 7.6000 | 125 | 2021.5 | 0.494 69 | 2727.7 | 7.5438 |
| 2638.8 | 0.378 96 | 2739.5 | 7.6882 | 130 | 2306.5 | 0.433 56 | 2738.6 | 7.6248 | 130 | 2048.0 | 0.488 27 | 2737.7 | 7.5687 |
| 2672.6 | 0.374 16 | 2749.3 | 7.7124 | 135 | 2336.2 | 0.428 05 | 2748.5 | 7.6492 | 135 | 2074.5 | 0.482 04 | 2747.6 | 7.5932 |
| 2706.4 | 0.369 50 | 2759.1 | 7.7364 | 140 | 2365.8 | 0.422 68 | 2758.3 | 7.6733 | 140 | 2101.0 | 0.475 97 | 2757.5 | 7.6174 |
| 2740.1 | 0.364 95 | 2769.0 | 7.7600 | 145 | 2395.4 | 0.417 46 | 2768.2 | 7.6970 | 145 | 2127.3 | 0.470 07 | 2767.4 | 7.6412 |
| 2773.7 | 0.360 53 | 2778.8 | 7.7834 | 150 | 2424.9 | 0.412 38 | 2778.1 | 7.7204 | 150 | 2153.7 | 0.464 32 | 2777.3 | 7.6647 |
| 2807.3 | 0.356 21 | 2788.6 | 7.8064 | 155 | 2454.4 | 0.407 43 | 2787.9 | 7.7435 | 155 | 2180.0 | 0.458 72 | 2787.2 | 7.6879 |
| 2840.9 | 0.352 00 | 2798.4 | 7.8292 | 160 | 2483.9 | 0.402 60 | 2797.7 | 7.7664 | 160 | 2206.2 | 0.453 27 | 2797.1 | 7.7108 |
| 2874.4 | 0.347 90 | 2808.2 | 7.8517 | 165 | 2513.3 | 0.397 88 | 2807.6 | 7.7889 | 165 | 2232.4 | 0.447 95 | 2806.9 | 7.7335 |
| 2907.9 | 0.343 89 | 2818.0 | 7.8739 | 170 | 2542.7 | 0.393 29 | 2817.4 | 7.8113 | 170 | 2258.6 | 0.442 75 | 2816.8 | 7.7559 |
| 2941.4 | 0.339 98 | 2827.8 | 7.8959 | 175 | 2572.0 | 0.388 80 | 2827.2 | 7.8333 | 175 | 2284.7 | 0.437 69 | 2826.7 | 7.7780 |
| 2974.8 | 0.336 16 | 2837.6 | 7.9177 | 180 | 2601.3 | 0.384 42 | 2837.1 | 7.8551 | 180 | 2310.9 | 0.432 74 | 2836.5 | 7.7998 |
| 3008.2 | 0.332 42 | 2847.4 | 7.9392 | 185 | 2630.6 | 0.380 14 | 2846.9 | 7.8767 | 185 | 2336.9 | 0.427 91 | 2846.4 | 7.8214 |
| 3041.6 | 0.328 77 | 2857.2 | 7.9605 | 190 | 2659.9 | 0.375 95 | 2856.7 | 7.8980 | 190 | 2363.0 | 0.423 19 | 2856.2 | 7.8428 |
| 3075.0 | 0.325 21 | 2867.0 | 7.9815 | 195 | 2689.1 | 0.371 87 | 2866.5 | 7.9191 | 195 | 2389.1 | 0.418 58 | 2866.1 | 7.8640 |
| 3108.3 | 0.321 72 | 2876.8 | 8.0024 | 200 | 2718.4 | 0.367 87 | 2876.4 | 7.9400 | 200 | 2415.1 | 0.414 07 | 2875.9 | 7.8849 |
| 3175.0 | 0.314 96 | 2896.5 | 8.0435 | 210 | 2776.8 | 0.360 13 | 2896.1 | 7.9812 | 210 | 2467.1 | 0.405 34 | 2895.6 | 7.9262 |
| 3241.5 | 0.308 50 | 2916.2 | 8.0839 | 220 | 2835.1 | 0.352 72 | 2915.8 | 8.0216 | 220 | 2519.0 | 0.396 99 | 2915.4 | 7.9667 |
| 3308.0 | 0.302 29 | 2935.9 | 8.1235 | 230 | 2893.4 | 0.345 62 | 2935.5 | 8.0613 | 230 | 2570.8 | 0.388 98 | 2935.2 | 8.0064 |
| 3374.5 | 0.296 34 | 2955.7 | 8.1624 | 240 | 2951.6 | 0.338 80 | 2955.3 | 8.1002 | 240 | 2622.7 | 0.381 29 | 2955.0 | 8.0454 |
| 3440.9 | 0.290 62 | 2975.5 | 8.2006 | 250 | 3009.8 | 0.332 25 | 2975.2 | 8.1385 | 250 | 2674.4 | 0.373 91 | 2974.8 | 8.0837 |
| 3507.3 | 0.285 12 | 2995.4 | 8.2382 | 260 | 3067.9 | 0.325 95 | 2995.0 | 8.1761 | 260 | 2726.2 | 0.366 82 | 2994.7 | 8.1213 |
| 3573.6 | 0.279 83 | 3015.3 | 8.2752 | 270 | 3126.0 | 0.319 90 | 3015.0 | 8.2131 | 270 | 2777.9 | 0.359 99 | 3014.7 | 8.1584 |
| 3640.0 | 0.274 73 | 3035.2 | 8.3116 | 280 | 3184.1 | 0.314 06 | 3034.9 | 8.2496 | 280 | 2829.5 | 0.353 42 | 3034.7 | 8.1949 |
| 3706.2 | 0.269 81 | 3055.2 | 8.3474 | 290 | 3242.1 | 0.308 44 | 3055.0 | 8.2854 | 290 | 2881.1 | 0.347 08 | 3054.7 | 8.2307 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.07 MPa ($t_s = 89.932\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.08 MPa ($t_s = 93.486\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.09 MPa ($t_s = 96.687\text{ }^{\circ}\text{C}$) | | | |
|---|-----------|--------|--------|-----------------------|---|-----------|--------|--------|-----------------------|---|-----------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 3772.5 | 0.265 08 | 3075.3 | 8.3827 | 300 | 3300.1 | 0.303 02 | 3075.0 | 8.3208 | 300 | 2932.8 | 0.340 98 | 3074.8 | 8.2661 |
| 3838.7 | 0.260 50 | 3095.4 | 8.4175 | 310 | 3358.1 | 0.297 78 | 3095.1 | 8.3556 | 310 | 2984.3 | 0.335 08 | 3094.9 | 8.3009 |
| 3905.0 | 0.256 08 | 3115.6 | 8.4518 | 320 | 3416.1 | 0.292 73 | 3115.3 | 8.3899 | 320 | 3035.9 | 0.329 39 | 3115.1 | 8.3353 |
| 3971.2 | 0.251 82 | 3135.8 | 8.4856 | 330 | 3474.1 | 0.287 85 | 3135.6 | 8.4237 | 330 | 3087.5 | 0.323 89 | 3135.4 | 8.3691 |
| 4037.3 | 0.247 69 | 3156.1 | 8.5190 | 340 | 3532.0 | 0.283 12 | 3155.9 | 8.4571 | 340 | 3139.0 | 0.318 57 | 3155.7 | 8.4025 |
| 4103.5 | 0.243 69 | 3176.4 | 8.5519 | 350 | 3589.9 | 0.278 56 | 3176.2 | 8.4900 | 350 | 3190.5 | 0.313 43 | 3176.0 | 8.4354 |
| 4169.7 | 0.239 83 | 3196.8 | 8.5844 | 360 | 3647.8 | 0.274 13 | 3196.6 | 8.5225 | 360 | 3242.0 | 0.308 45 | 3196.4 | 8.4679 |
| 4235.8 | 0.236 08 | 3217.3 | 8.6164 | 370 | 3705.7 | 0.269 85 | 3217.1 | 8.5546 | 370 | 3293.5 | 0.303 63 | 3216.9 | 8.5000 |
| 4301.9 | 0.232 45 | 3237.8 | 8.6481 | 380 | 3763.6 | 0.265 70 | 3237.6 | 8.5863 | 380 | 3345.0 | 0.298 96 | 3237.5 | 8.5317 |
| 4368.0 | 0.228 94 | 3258.4 | 8.6794 | 390 | 3821.5 | 0.261 68 | 3258.2 | 8.6176 | 390 | 3396.4 | 0.294 43 | 3258.1 | 8.5630 |
| 4434.1 | 0.225 52 | 3279.0 | 8.7103 | 400 | 3879.4 | 0.257 77 | 3278.9 | 8.6485 | 400 | 3447.9 | 0.290 03 | 3278.7 | 8.5939 |
| 4500.2 | 0.222 21 | 3299.7 | 8.7408 | 410 | 3937.2 | 0.253 99 | 3299.6 | 8.6790 | 410 | 3499.3 | 0.285 77 | 3299.4 | 8.6245 |
| 4566.3 | 0.218 99 | 3320.5 | 8.7710 | 420 | 3995.1 | 0.250 31 | 3320.4 | 8.7092 | 420 | 3550.8 | 0.281 63 | 3320.2 | 8.6547 |
| 4632.4 | 0.215 87 | 3341.3 | 8.8009 | 430 | 4052.9 | 0.246 74 | 3341.2 | 8.7391 | 430 | 3602.2 | 0.277 61 | 3341.1 | 8.6846 |
| 4698.5 | 0.212 84 | 3362.3 | 8.8304 | 440 | 4110.7 | 0.243 27 | 3362.1 | 8.7686 | 440 | 3653.6 | 0.273 70 | 3362.0 | 8.7141 |
| 4764.5 | 0.209 88 | 3383.2 | 8.8596 | 450 | 4168.6 | 0.239 89 | 3383.1 | 8.7978 | 450 | 3705.0 | 0.269 90 | 3383.0 | 8.7433 |
| 4830.6 | 0.207 01 | 3404.3 | 8.8885 | 460 | 4226.4 | 0.236 61 | 3404.1 | 8.8267 | 460 | 3756.4 | 0.266 21 | 3404.0 | 8.7722 |
| 4896.6 | 0.204 22 | 3425.4 | 8.9170 | 470 | 4284.2 | 0.233 42 | 3425.2 | 8.8553 | 470 | 3807.8 | 0.262 62 | 3425.1 | 8.8008 |
| 4962.7 | 0.201 50 | 3446.5 | 8.9453 | 480 | 4342.0 | 0.230 31 | 3446.4 | 8.8836 | 480 | 3859.2 | 0.259 12 | 3446.3 | 8.8291 |
| 5028.7 | 0.198 86 | 3467.8 | 8.9733 | 490 | 4399.8 | 0.227 28 | 3467.6 | 8.9116 | 490 | 3910.6 | 0.255 71 | 3467.5 | 8.8571 |
| 5094.8 | 0.196 28 | 3489.1 | 9.0011 | 500 | 4457.6 | 0.224 34 | 3488.9 | 8.9393 | 500 | 3962.0 | 0.252 40 | 3488.8 | 8.8849 |
| 5226.8 | 0.191 32 | 3531.9 | 9.0557 | 520 | 4573.2 | 0.218 67 | 3531.8 | 8.9940 | 520 | 4064.8 | 0.246 02 | 3531.7 | 8.9396 |
| 5358.9 | 0.186 61 | 3574.9 | 9.1094 | 540 | 4688.7 | 0.213 28 | 3574.8 | 9.0476 | 540 | 4167.5 | 0.239 95 | 3574.7 | 8.9932 |
| 5490.9 | 0.182 12 | 3618.3 | 9.1620 | 560 | 4804.3 | 0.208 15 | 3618.2 | 9.1003 | 560 | 4270.2 | 0.234 18 | 3618.1 | 9.0459 |
| 5622.9 | 0.177 84 | 3661.9 | 9.2138 | 580 | 4919.8 | 0.203 26 | 3661.8 | 9.1521 | 580 | 4372.9 | 0.228 68 | 3661.7 | 9.0976 |
| 5754.9 | 0.173 76 | 3705.8 | 9.2646 | 600 | 5035.3 | 0.198 60 | 3705.7 | 9.2029 | 600 | 4475.6 | 0.223 43 | 3705.7 | 9.1485 |
| 5886.9 | 0.169 87 | 3750.0 | 9.3147 | 620 | 5150.8 | 0.194 14 | 3749.9 | 9.2530 | 620 | 4578.3 | 0.218 42 | 3749.8 | 9.1986 |
| 6018.9 | 0.166 14 | 3794.5 | 9.3639 | 640 | 5266.3 | 0.189 89 | 3794.4 | 9.3022 | 640 | 4681.0 | 0.213 63 | 3794.3 | 9.2478 |
| 6150.9 | 0.162 58 | 3839.2 | 9.4124 | 660 | 5381.8 | 0.185 81 | 3839.1 | 9.3507 | 660 | 4783.7 | 0.209 04 | 3839.1 | 9.2963 |
| 6282.8 | 0.159 16 | 3884.2 | 9.4601 | 680 | 5497.3 | 0.181 91 | 3884.2 | 9.3984 | 680 | 4886.3 | 0.204 65 | 3884.1 | 9.3440 |
| 6414.8 | 0.155 89 | 3929.5 | 9.5072 | 700 | 5612.8 | 0.178 16 | 3929.5 | 9.4455 | 700 | 4989.0 | 0.200 44 | 3929.4 | 9.3911 |
| 6546.7 | 0.152 75 | 3975.1 | 9.5535 | 720 | 5728.3 | 0.174 57 | 3975.1 | 9.4919 | 720 | 5091.6 | 0.196 40 | 3975.0 | 9.4375 |
| 6678.7 | 0.149 73 | 4021.0 | 9.5993 | 740 | 5843.7 | 0.171 12 | 4021.0 | 9.5376 | 740 | 5194.3 | 0.192 52 | 4020.9 | 9.4832 |
| 6810.6 | 0.146 83 | 4067.2 | 9.6444 | 760 | 5959.2 | 0.167 81 | 4067.1 | 9.5827 | 760 | 5296.9 | 0.188 79 | 4067.1 | 9.5283 |
| 6942.6 | 0.144 04 | 4113.6 | 9.6889 | 780 | 6074.6 | 0.164 62 | 4113.6 | 9.6273 | 780 | 5399.6 | 0.185 20 | 4113.5 | 9.5729 |
| 7074.5 | 0.141 35 | 4160.3 | 9.7329 | 800 | 6190.1 | 0.161 55 | 4160.3 | 9.6712 | 800 | 5502.2 | 0.181 75 | 4160.3 | 9.6168 |
| 7206.4 | 0.138 76 | 4207.3 | 9.7763 | 820 | 6305.5 | 0.158 59 | 4207.3 | 9.7146 | 820 | 5604.8 | 0.178 42 | 4207.3 | 9.6602 |
| 7338.4 | 0.136 27 | 4254.6 | 9.8191 | 840 | 6421.0 | 0.155 74 | 4254.6 | 9.7575 | 840 | 5707.4 | 0.175 21 | 4254.5 | 9.7031 |
| 7470.3 | 0.133 86 | 4302.2 | 9.8615 | 860 | 6536.4 | 0.152 99 | 4302.1 | 9.7998 | 860 | 5810.1 | 0.172 12 | 4302.1 | 9.7454 |
| 7602.2 | 0.131 54 | 4350.0 | 9.9033 | 880 | 6651.8 | 0.150 33 | 4350.0 | 9.8416 | 880 | 5912.7 | 0.169 13 | 4349.9 | 9.7873 |
| 7734.1 | 0.129 30 | 4398.1 | 9.9447 | 900 | 6767.3 | 0.147 77 | 4398.1 | 9.8830 | 900 | 6015.3 | 0.166 24 | 4398.0 | 9.8286 |
| 7866.0 | 0.127 13 | 4446.5 | 9.9855 | 920 | 6882.7 | 0.145 29 | 4446.5 | 9.9239 | 920 | 6117.9 | 0.163 45 | 4446.4 | 9.8695 |
| 7997.9 | 0.125 03 | 4495.1 | 10.026 | 940 | 6998.1 | 0.142 90 | 4495.1 | 9.9643 | 940 | 6220.5 | 0.160 76 | 4495.1 | 9.9099 |
| 8129.8 | 0.123 00 | 4544.0 | 10.066 | 960 | 7113.6 | 0.140 58 | 4544.0 | 10.004 | 960 | 6323.1 | 0.158 15 | 4544.0 | 9.9499 |
| 8261.7 | 0.121 04 | 4593.2 | 10.106 | 980 | 7229.0 | 0.138 33 | 4593.2 | 10.044 | 980 | 6425.7 | 0.155 62 | 4593.2 | 9.9895 |
| 8393.7 | 0.119 14 | 4642.6 | 10.145 | 1000 | 7344.4 | 0.136 16 | 4642.6 | 10.083 | 1000 | 6528.3 | 0.153 18 | 4642.6 | 10.029 |
| 9053.1 | 0.110 46 | 4893.6 | 10.334 | 1100 | 7921.5 | 0.126 24 | 4893.6 | 10.273 | 1100 | 7041.3 | 0.142 02 | 4893.6 | 10.218 |
| 9712.6 | 0.102 96 | 5150.6 | 10.515 | 1200 | 8498.5 | 0.117 67 | 5150.6 | 10.453 | 1200 | 7554.2 | 0.132 38 | 5150.6 | 10.399 |
| 10 372. | 0.096 413 | 5413.3 | 10.688 | 1300 | 9075.5 | 0.110 19 | 5413.3 | 10.626 | 1300 | 8067.1 | 0.123 96 | 5413.3 | 10.572 |
| 11 031. | 0.090 650 | 5681.2 | 10.853 | 1400 | 9652.5 | 0.103 60 | 5681.2 | 10.791 | 1400 | 8580.0 | 0.116 55 | 5681.2 | 10.737 |
| 11 691. | 0.085 537 | 5953.9 | 11.011 | 1500 | 10 229. | 0.097 757 | 5953.9 | 10.949 | 1500 | 9092.9 | 0.109 98 | 5953.9 | 10.895 |
| 12 350. | 0.080 970 | 6231.0 | 11.163 | 1600 | 10 806. | 0.092 537 | 6231.0 | 11.101 | 1600 | 9605.8 | 0.104 10 | 6231.0 | 11.047 |
| 13 669. | 0.073 159 | 6797.2 | 11.450 | 1800 | 11 960. | 0.083 610 | 6797.2 | 11.388 | 1800 | 10 631. | 0.094 060 | 6797.2 | 11.334 |
| 14 988. | 0.066 722 | 7377.0 | 11.717 | 2000 | 13 114. | 0.076 253 | 7377.0 | 11.655 | 2000 | 11 657. | 0.085 784 | 7377.0 | 11.601 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.10 MPa ($t_s = 99.606\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.11 MPa ($t_s = 102.292\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.12 MPa ($t_s = 104.784\text{ }^{\circ}\text{C}$) | | | |
|---|----------|--------|-----------|-----------------------|--|----------|--------|-----------|-----------------------|--|----------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.043 15 | 958.63 | 417.50 | 1.3028 | $t_s(\text{L})$ | 1.045 27 | 956.69 | 428.84 | 1.3330 | $t_s(\text{L})$ | 1.047 27 | 954.86 | 439.36 | 1.3609 |
| 1693.9 | 0.590 34 | 2674.9 | 7.3588 | $t_s(\text{V})$ | 1549.5 | 0.645 39 | 2679.2 | 7.3269 | $t_s(\text{V})$ | 1428.4 | 0.700 10 | 2683.1 | 7.2977 |
| 1.000 16 | 999.84 | 0.06 | -0.000 15 | 0 | 1.000 15 | 999.85 | 0.07 | -0.000 15 | 0 | 1.000 15 | 999.85 | 0.08 | -0.000 15 |
| 1.000 03 | 999.97 | 21.12 | 0.076 25 | 5 | 1.000 03 | 999.97 | 21.13 | 0.076 25 | 5 | 1.000 02 | 999.98 | 21.14 | 0.076 25 |
| 1.000 30 | 999.70 | 42.12 | 0.151 08 | 10 | 1.000 29 | 999.71 | 42.13 | 0.151 08 | 10 | 1.000 29 | 999.71 | 42.14 | 0.151 08 |
| 1.000 90 | 999.10 | 63.08 | 0.224 45 | 15 | 1.000 89 | 999.11 | 63.09 | 0.224 45 | 15 | 1.000 89 | 999.11 | 63.09 | 0.224 45 |
| 1.001 80 | 998.21 | 84.01 | 0.296 46 | 20 | 1.001 79 | 998.21 | 84.02 | 0.296 46 | 20 | 1.001 79 | 998.22 | 84.02 | 0.296 46 |
| 1.002 96 | 997.05 | 104.92 | 0.367 20 | 25 | 1.002 96 | 997.05 | 104.93 | 0.367 20 | 25 | 1.002 95 | 997.06 | 104.94 | 0.367 19 |
| 1.004 37 | 995.65 | 125.82 | 0.436 73 | 30 | 1.004 37 | 995.65 | 125.83 | 0.436 72 | 30 | 1.004 36 | 995.66 | 125.84 | 0.436 72 |
| 1.006 00 | 994.03 | 146.72 | 0.505 10 | 35 | 1.006 00 | 994.04 | 146.73 | 0.505 09 | 35 | 1.005 99 | 994.04 | 146.74 | 0.505 09 |
| 1.007 85 | 992.22 | 167.62 | 0.572 37 | 40 | 1.007 84 | 992.22 | 167.62 | 0.572 36 | 40 | 1.007 84 | 992.22 | 167.63 | 0.572 36 |
| 1.009 88 | 990.21 | 188.51 | 0.638 58 | 45 | 1.009 88 | 990.22 | 188.52 | 0.638 57 | 45 | 1.009 88 | 990.22 | 188.53 | 0.638 57 |
| 1.012 11 | 988.03 | 209.42 | 0.703 77 | 50 | 1.012 11 | 988.04 | 209.43 | 0.703 76 | 50 | 1.012 10 | 988.04 | 209.43 | 0.703 76 |
| 1.014 52 | 985.69 | 230.33 | 0.767 98 | 55 | 1.014 51 | 985.70 | 230.34 | 0.767 98 | 55 | 1.014 51 | 985.70 | 230.34 | 0.767 97 |
| 1.017 09 | 983.20 | 251.25 | 0.831 25 | 60 | 1.017 09 | 983.20 | 251.26 | 0.831 25 | 60 | 1.017 08 | 983.20 | 251.26 | 0.831 24 |
| 1.019 84 | 980.55 | 272.18 | 0.893 61 | 65 | 1.019 83 | 980.55 | 272.19 | 0.893 60 | 65 | 1.019 83 | 980.56 | 272.19 | 0.893 60 |
| 1.022 74 | 977.76 | 293.12 | 0.955 09 | 70 | 1.022 74 | 977.77 | 293.13 | 0.955 09 | 70 | 1.022 73 | 977.77 | 293.14 | 0.955 08 |
| 1.025 81 | 974.84 | 314.08 | 1.0157 | 75 | 1.025 80 | 974.85 | 314.09 | 1.0157 | 75 | 1.025 80 | 974.85 | 314.10 | 1.0157 |
| 1.029 03 | 971.79 | 335.05 | 1.0755 | 80 | 1.029 02 | 971.79 | 335.06 | 1.0755 | 80 | 1.029 02 | 971.80 | 335.07 | 1.0755 |
| 1.032 41 | 968.61 | 356.05 | 1.1346 | 85 | 1.032 40 | 968.62 | 356.06 | 1.1346 | 85 | 1.032 40 | 968.62 | 356.06 | 1.1346 |
| 1.035 94 | 965.31 | 377.06 | 1.1928 | 90 | 1.035 93 | 965.31 | 377.07 | 1.1928 | 90 | 1.035 93 | 965.32 | 377.08 | 1.1928 |
| 1.039 62 | 961.89 | 398.10 | 1.2504 | 95 | 1.039 62 | 961.89 | 398.11 | 1.2504 | 95 | 1.039 61 | 961.90 | 398.12 | 1.2504 |
| 1695.9 | 0.589 67 | 2675.8 | 7.3610 | 100 | 1.043 46 | 958.35 | 419.17 | 1.3072 | 100 | 1.043 45 | 958.36 | 419.18 | 1.3072 |
| 1720.4 | 0.581 27 | 2686.1 | 7.3885 | 105 | 1561.6 | 0.640 37 | 2684.8 | 7.3418 | 105 | 1429.3 | 0.699 67 | 2683.5 | 7.2989 |
| 1744.7 | 0.573 15 | 2696.3 | 7.4155 | 110 | 1583.9 | 0.631 36 | 2695.2 | 7.3690 | 110 | 1449.8 | 0.689 74 | 2693.9 | 7.3263 |
| 1769.0 | 0.565 29 | 2706.5 | 7.4418 | 115 | 1606.1 | 0.622 64 | 2705.4 | 7.3956 | 115 | 1470.3 | 0.680 15 | 2704.3 | 7.3531 |
| 1793.2 | 0.557 67 | 2716.6 | 7.4678 | 120 | 1628.1 | 0.614 20 | 2715.6 | 7.4217 | 120 | 1490.6 | 0.670 87 | 2714.6 | 7.3794 |
| 1817.2 | 0.550 28 | 2726.7 | 7.4932 | 125 | 1650.1 | 0.606 01 | 2725.7 | 7.4473 | 125 | 1510.9 | 0.661 87 | 2724.8 | 7.4052 |
| 1841.2 | 0.543 11 | 2736.7 | 7.5183 | 130 | 1672.0 | 0.598 07 | 2735.8 | 7.4725 | 130 | 1531.0 | 0.653 15 | 2734.9 | 7.4305 |
| 1865.2 | 0.536 14 | 2746.7 | 7.5429 | 135 | 1693.9 | 0.590 36 | 2745.9 | 7.4973 | 135 | 1551.1 | 0.644 69 | 2745.0 | 7.4554 |
| 1889.1 | 0.529 36 | 2756.7 | 7.5672 | 140 | 1715.7 | 0.582 86 | 2755.9 | 7.5217 | 140 | 1571.2 | 0.636 46 | 2755.1 | 7.4800 |
| 1912.9 | 0.522 77 | 2766.7 | 7.5911 | 145 | 1737.4 | 0.575 57 | 2765.9 | 7.5457 | 145 | 1591.2 | 0.628 47 | 2765.1 | 7.5041 |
| 1936.7 | 0.516 36 | 2776.6 | 7.6148 | 150 | 1759.1 | 0.568 48 | 2775.9 | 7.5694 | 150 | 1611.1 | 0.620 69 | 2775.1 | 7.5279 |
| 1960.4 | 0.510 11 | 2786.5 | 7.6380 | 155 | 1780.7 | 0.561 57 | 2785.8 | 7.5928 | 155 | 1631.0 | 0.613 13 | 2785.1 | 7.5514 |
| 1984.1 | 0.504 02 | 2796.4 | 7.6610 | 160 | 1802.3 | 0.554 85 | 2795.8 | 7.6159 | 160 | 1650.8 | 0.605 76 | 2795.1 | 7.5745 |
| 2007.7 | 0.498 08 | 2806.3 | 7.6838 | 165 | 1823.9 | 0.548 29 | 2805.7 | 7.6387 | 165 | 1670.6 | 0.598 57 | 2805.0 | 7.5974 |
| 2031.3 | 0.492 29 | 2816.2 | 7.7062 | 170 | 1845.4 | 0.541 90 | 2815.6 | 7.6612 | 170 | 1690.4 | 0.591 57 | 2815.0 | 7.6199 |
| 2054.9 | 0.486 64 | 2826.1 | 7.7284 | 175 | 1866.9 | 0.535 66 | 2825.5 | 7.6834 | 175 | 1710.2 | 0.584 74 | 2824.9 | 7.6422 |
| 2078.5 | 0.481 13 | 2836.0 | 7.7503 | 180 | 1888.3 | 0.529 57 | 2835.4 | 7.7054 | 180 | 1729.9 | 0.578 08 | 2834.9 | 7.6643 |
| 2102.0 | 0.475 74 | 2845.8 | 7.7719 | 185 | 1909.8 | 0.523 63 | 2845.3 | 7.7271 | 185 | 1749.6 | 0.571 58 | 2844.8 | 7.6860 |
| 2125.5 | 0.470 48 | 2855.7 | 7.7934 | 190 | 1931.2 | 0.517 82 | 2855.2 | 7.7486 | 190 | 1769.2 | 0.565 22 | 2854.7 | 7.7076 |
| 2149.0 | 0.465 34 | 2865.6 | 7.8146 | 195 | 1952.5 | 0.512 15 | 2865.1 | 7.7698 | 195 | 1788.8 | 0.559 02 | 2864.6 | 7.7289 |
| 2172.4 | 0.460 31 | 2875.5 | 7.8356 | 200 | 1973.9 | 0.506 61 | 2875.0 | 7.7908 | 200 | 1808.5 | 0.552 96 | 2874.5 | 7.7499 |
| 2219.3 | 0.450 59 | 2895.2 | 7.8769 | 210 | 2016.6 | 0.495 89 | 2894.8 | 7.8322 | 210 | 1847.6 | 0.541 23 | 2894.3 | 7.7914 |
| 2266.1 | 0.441 29 | 2915.0 | 7.9174 | 220 | 2059.2 | 0.485 63 | 2914.6 | 7.8728 | 220 | 1886.7 | 0.530 01 | 2914.2 | 7.8320 |
| 2312.8 | 0.432 37 | 2934.8 | 7.9572 | 230 | 2101.7 | 0.475 80 | 2934.4 | 7.9126 | 230 | 1925.8 | 0.519 27 | 2934.1 | 7.8719 |
| 2359.5 | 0.423 82 | 2954.6 | 7.9962 | 240 | 2144.2 | 0.466 37 | 2954.3 | 7.9517 | 240 | 1964.8 | 0.508 96 | 2953.9 | 7.9111 |
| 2406.2 | 0.415 60 | 2974.5 | 8.0346 | 250 | 2186.7 | 0.457 32 | 2974.2 | 7.9901 | 250 | 2003.7 | 0.499 07 | 2973.9 | 7.9495 |
| 2452.8 | 0.407 70 | 2994.4 | 8.0723 | 260 | 2229.1 | 0.448 62 | 2994.1 | 8.0279 | 260 | 2042.7 | 0.489 56 | 2993.8 | 7.9873 |
| 2499.3 | 0.400 11 | 3014.4 | 8.1094 | 270 | 2271.4 | 0.440 25 | 3014.1 | 8.0650 | 270 | 2081.5 | 0.480 42 | 3013.8 | 8.0244 |
| 2545.9 | 0.392 80 | 3034.4 | 8.1459 | 280 | 2313.8 | 0.432 19 | 3034.1 | 8.1015 | 280 | 2120.4 | 0.471 62 | 3033.8 | 8.0610 |
| 2592.4 | 0.385 75 | 3054.4 | 8.1818 | 290 | 2356.1 | 0.424 43 | 3054.2 | 8.1374 | 290 | 2159.2 | 0.463 14 | 3053.9 | 8.0970 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.10 MPa ($t_s = 99.606\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.11 MPa ($t_s = 102.292\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.12 MPa ($t_s = 104.784\text{ }^{\circ}\text{C}$) | | | |
|---|-----------|--------|--------|-----------------------|--|----------|--------|--------|-----------------------|--|----------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 2638.8 | 0.378 95 | 3074.5 | 8.2172 | 300 | 2398.4 | 0.416 95 | 3074.3 | 8.1729 | 300 | 2198.0 | 0.454 96 | 3074.0 | 8.1324 |
| 2685.3 | 0.372 40 | 3094.7 | 8.2520 | 310 | 2440.6 | 0.409 73 | 3094.5 | 8.2077 | 310 | 2236.7 | 0.447 08 | 3094.2 | 8.1673 |
| 2731.7 | 0.366 07 | 3114.9 | 8.2864 | 320 | 2482.9 | 0.402 76 | 3114.7 | 8.2421 | 320 | 2275.5 | 0.439 47 | 3114.4 | 8.2017 |
| 2778.2 | 0.359 95 | 3135.1 | 8.3202 | 330 | 2525.1 | 0.396 02 | 3134.9 | 8.2760 | 330 | 2314.2 | 0.432 11 | 3134.7 | 8.2356 |
| 2824.6 | 0.354 04 | 3155.5 | 8.3536 | 340 | 2567.3 | 0.389 51 | 3155.3 | 8.3094 | 340 | 2352.9 | 0.425 00 | 3155.1 | 8.2690 |
| 2871.0 | 0.348 32 | 3175.8 | 8.3866 | 350 | 2609.5 | 0.383 22 | 3175.6 | 8.3424 | 350 | 2391.6 | 0.418 13 | 3175.4 | 8.3020 |
| 2917.3 | 0.342 78 | 3196.3 | 8.4191 | 360 | 2651.7 | 0.377 12 | 3196.1 | 8.3749 | 360 | 2430.3 | 0.411 47 | 3195.9 | 8.3345 |
| 2963.7 | 0.337 42 | 3216.7 | 8.4512 | 370 | 2693.8 | 0.371 22 | 3216.6 | 8.4070 | 370 | 2469.0 | 0.405 03 | 3216.4 | 8.3667 |
| 3010.0 | 0.332 22 | 3237.3 | 8.4829 | 380 | 2736.0 | 0.365 50 | 3237.1 | 8.4387 | 380 | 2507.6 | 0.398 78 | 3237.0 | 8.3984 |
| 3056.4 | 0.327 19 | 3257.9 | 8.5142 | 390 | 2778.1 | 0.359 95 | 3257.7 | 8.4701 | 390 | 2546.3 | 0.392 73 | 3257.6 | 8.4297 |
| 3102.7 | 0.322 30 | 3278.6 | 8.5452 | 400 | 2820.3 | 0.354 58 | 3278.4 | 8.5010 | 400 | 2584.9 | 0.386 86 | 3278.3 | 8.4607 |
| 3149.0 | 0.317 56 | 3299.3 | 8.5757 | 410 | 2862.4 | 0.349 36 | 3299.1 | 8.5316 | 410 | 2623.5 | 0.381 17 | 3299.0 | 8.4913 |
| 3195.3 | 0.312 96 | 3320.1 | 8.6059 | 420 | 2904.5 | 0.344 29 | 3319.9 | 8.5618 | 420 | 2662.1 | 0.375 64 | 3319.8 | 8.5215 |
| 3241.6 | 0.308 49 | 3340.9 | 8.6358 | 430 | 2946.6 | 0.339 37 | 3340.8 | 8.5917 | 430 | 2700.8 | 0.370 27 | 3340.7 | 8.5514 |
| 3287.9 | 0.304 14 | 3361.9 | 8.6653 | 440 | 2988.7 | 0.334 59 | 3361.7 | 8.6212 | 440 | 2739.4 | 0.365 05 | 3361.6 | 8.5809 |
| 3334.2 | 0.299 92 | 3382.8 | 8.6946 | 450 | 3030.8 | 0.329 95 | 3382.7 | 8.6504 | 450 | 2777.9 | 0.359 98 | 3382.6 | 8.6102 |
| 3380.5 | 0.295 82 | 3403.9 | 8.7235 | 460 | 3072.9 | 0.325 43 | 3403.8 | 8.6794 | 460 | 2816.5 | 0.355 05 | 3403.6 | 8.6391 |
| 3426.7 | 0.291 82 | 3425.0 | 8.7521 | 470 | 3114.9 | 0.321 03 | 3424.9 | 8.7080 | 470 | 2855.1 | 0.350 25 | 3424.8 | 8.6677 |
| 3473.0 | 0.287 93 | 3446.2 | 8.7804 | 480 | 3157.0 | 0.316 75 | 3446.1 | 8.7363 | 480 | 2893.7 | 0.345 58 | 3446.0 | 8.6960 |
| 3519.3 | 0.284 15 | 3467.4 | 8.8084 | 490 | 3199.1 | 0.312 59 | 3467.3 | 8.7643 | 490 | 2932.3 | 0.341 03 | 3467.2 | 8.7240 |
| 3565.5 | 0.280 46 | 3488.7 | 8.8361 | 500 | 3241.1 | 0.308 53 | 3488.6 | 8.7921 | 500 | 2970.8 | 0.336 61 | 3488.5 | 8.7518 |
| 3658.0 | 0.273 37 | 3531.6 | 8.8908 | 520 | 3325.3 | 0.300 73 | 3531.5 | 8.8467 | 520 | 3047.9 | 0.328 09 | 3531.4 | 8.8065 |
| 3750.5 | 0.266 63 | 3574.7 | 8.9445 | 540 | 3409.3 | 0.293 31 | 3574.6 | 8.9004 | 540 | 3125.0 | 0.320 00 | 3574.5 | 8.8602 |
| 3843.0 | 0.260 21 | 3618.0 | 8.9972 | 560 | 3493.4 | 0.286 25 | 3617.9 | 8.9531 | 560 | 3202.1 | 0.312 29 | 3617.8 | 8.9129 |
| 3935.4 | 0.254 10 | 3661.7 | 9.0489 | 580 | 3577.5 | 0.279 53 | 3661.6 | 9.0049 | 580 | 3279.2 | 0.304 95 | 3661.5 | 8.9646 |
| 4027.9 | 0.248 27 | 3705.6 | 9.0998 | 600 | 3661.5 | 0.273 11 | 3705.5 | 9.0558 | 600 | 3356.3 | 0.297 95 | 3705.4 | 9.0155 |
| 4120.3 | 0.242 70 | 3749.8 | 9.1499 | 620 | 3745.6 | 0.266 98 | 3749.7 | 9.1058 | 620 | 3433.3 | 0.291 26 | 3749.6 | 9.0656 |
| 4212.7 | 0.237 38 | 3794.3 | 9.1991 | 640 | 3829.6 | 0.261 12 | 3794.2 | 9.1551 | 640 | 3510.4 | 0.284 87 | 3794.1 | 9.1149 |
| 4305.2 | 0.232 28 | 3839.0 | 9.2476 | 660 | 3913.6 | 0.255 52 | 3838.9 | 9.2036 | 660 | 3587.4 | 0.278 75 | 3838.9 | 9.1633 |
| 4397.6 | 0.227 40 | 3884.0 | 9.2954 | 680 | 3997.7 | 0.250 15 | 3884.0 | 9.2513 | 680 | 3664.4 | 0.272 90 | 3883.9 | 9.2111 |
| 4490.0 | 0.222 72 | 3929.4 | 9.3424 | 700 | 4081.7 | 0.245 00 | 3929.3 | 9.2984 | 700 | 3741.4 | 0.267 28 | 3929.3 | 9.2582 |
| 4582.4 | 0.218 23 | 3975.0 | 9.3888 | 720 | 4165.7 | 0.240 06 | 3974.9 | 9.3448 | 720 | 3818.4 | 0.261 89 | 3974.9 | 9.3046 |
| 4674.7 | 0.213 92 | 4020.9 | 9.4345 | 740 | 4249.7 | 0.235 31 | 4020.8 | 9.3905 | 740 | 3895.4 | 0.256 71 | 4020.8 | 9.3503 |
| 4767.1 | 0.209 77 | 4067.0 | 9.4797 | 760 | 4333.7 | 0.230 75 | 4067.0 | 9.4356 | 760 | 3972.4 | 0.251 73 | 4066.9 | 9.3954 |
| 4859.5 | 0.205 78 | 4113.5 | 9.5242 | 780 | 4417.7 | 0.226 36 | 4113.4 | 9.4802 | 780 | 4049.4 | 0.246 95 | 4113.4 | 9.4400 |
| 4951.9 | 0.201 94 | 4160.2 | 9.5681 | 800 | 4501.6 | 0.222 14 | 4160.2 | 9.5241 | 800 | 4126.4 | 0.242 34 | 4160.1 | 9.4839 |
| 5044.3 | 0.198 25 | 4207.2 | 9.6115 | 820 | 4585.6 | 0.218 07 | 4207.2 | 9.5675 | 820 | 4203.4 | 0.237 90 | 4207.1 | 9.5273 |
| 5136.6 | 0.194 68 | 4254.5 | 9.6544 | 840 | 4669.6 | 0.214 15 | 4254.5 | 9.6104 | 840 | 4280.4 | 0.233 62 | 4254.4 | 9.5702 |
| 5229.0 | 0.191 24 | 4302.1 | 9.6968 | 860 | 4753.6 | 0.210 37 | 4302.0 | 9.6527 | 860 | 4357.4 | 0.229 50 | 4302.0 | 9.6126 |
| 5321.3 | 0.187 92 | 4349.9 | 9.7386 | 880 | 4837.5 | 0.206 72 | 4349.9 | 9.6946 | 880 | 4434.3 | 0.225 51 | 4349.8 | 9.6544 |
| 5413.7 | 0.184 72 | 4398.0 | 9.7800 | 900 | 4921.5 | 0.203 19 | 4398.0 | 9.7360 | 900 | 4511.3 | 0.221 66 | 4397.9 | 9.6958 |
| 5506.1 | 0.181 62 | 4446.4 | 9.8209 | 920 | 5005.5 | 0.199 78 | 4446.4 | 9.7768 | 920 | 4588.3 | 0.217 95 | 4446.3 | 9.7367 |
| 5598.4 | 0.178 62 | 4495.0 | 9.8613 | 940 | 5089.4 | 0.196 49 | 4495.0 | 9.8173 | 940 | 4665.3 | 0.214 35 | 4495.0 | 9.7771 |
| 5690.8 | 0.175 72 | 4543.9 | 9.9013 | 960 | 5173.4 | 0.193 30 | 4543.9 | 9.8573 | 960 | 4742.2 | 0.210 87 | 4543.9 | 9.8171 |
| 5783.1 | 0.172 92 | 4593.1 | 9.9408 | 980 | 5257.3 | 0.190 21 | 4593.1 | 9.8968 | 980 | 4819.2 | 0.207 50 | 4593.1 | 9.8567 |
| 5875.4 | 0.170 20 | 4642.6 | 9.9800 | 1000 | 5341.3 | 0.187 22 | 4642.5 | 9.9360 | 1000 | 4896.1 | 0.204 24 | 4642.5 | 9.8958 |
| 6337.1 | 0.157 80 | 4893.5 | 10.170 | 1100 | 5761.0 | 0.173 58 | 4893.5 | 10.126 | 1100 | 5280.9 | 0.189 36 | 4893.5 | 10.086 |
| 6798.8 | 0.147 08 | 5150.6 | 10.350 | 1200 | 6180.7 | 0.161 79 | 5150.6 | 10.306 | 1200 | 5665.7 | 0.176 50 | 5150.5 | 10.266 |
| 7260.4 | 0.137 73 | 5413.2 | 10.523 | 1300 | 6600.4 | 0.151 51 | 5413.2 | 10.479 | 1300 | 6050.4 | 0.165 28 | 5413.2 | 10.439 |
| 7722.0 | 0.129 50 | 5681.2 | 10.688 | 1400 | 7020.1 | 0.142 45 | 5681.1 | 10.644 | 1400 | 6435.1 | 0.155 40 | 5681.1 | 10.604 |
| 8183.6 | 0.122 20 | 5953.9 | 10.846 | 1500 | 7439.7 | 0.134 41 | 5953.9 | 10.802 | 1500 | 6819.7 | 0.146 63 | 5953.9 | 10.762 |
| 8645.2 | 0.115 67 | 6231.0 | 10.998 | 1600 | 7859.3 | 0.127 24 | 6231.0 | 10.954 | 1600 | 7204.4 | 0.138 80 | 6231.0 | 10.914 |
| 9568.4 | 0.104 51 | 6797.2 | 11.285 | 1800 | 8698.5 | 0.114 96 | 6797.1 | 11.241 | 1800 | 7973.7 | 0.125 41 | 6797.1 | 11.201 |
| 10 491. | 0.095 316 | 7377.0 | 11.552 | 2000 | 9537.7 | 0.104 85 | 7377.0 | 11.508 | 2000 | 8743.0 | 0.114 38 | 7377.0 | 11.468 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.13 MPa ($t_s = 107.109\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 0.14 MPa ($t_s = 109.292\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 0.15 MPa ($t_s = 111.349\text{ }^{\circ}\text{C}$) | | | |
|--|----------|--------|-----------|-------------------------|--|----------|--------|-----------|-------------------------|--|----------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.049 17 | 953.13 | 449.19 | 1.3868 | $t_s(\text{L})$ | 1.050 99 | 951.49 | 458.42 | 1.4110 | $t_s(\text{L})$ | 1.052 73 | 949.92 | 467.13 | 1.4337 |
| 1325.3 | 0.754 53 | 2686.6 | 7.2709 | $t_s(\text{V})$ | 1236.6 | 0.808 69 | 2690.0 | 7.2461 | $t_s(\text{V})$ | 1159.3 | 0.862 60 | 2693.1 | 7.2230 |
| 1.000 14 | 999.86 | 0.09 | -0.000 15 | 0 | 1.000 14 | 999.86 | 0.10 | -0.000 15 | 0 | 1.000 13 | 999.87 | 0.11 | -0.000 14 |
| 1.000 02 | 999.98 | 21.15 | 0.076 25 | 5 | 1.000 01 | 999.99 | 21.16 | 0.076 25 | 5 | 1.000 01 | 999.99 | 21.17 | 0.076 25 |
| 1.000 28 | 999.72 | 42.15 | 0.151 07 | 10 | 1.000 28 | 999.72 | 42.16 | 0.151 07 | 10 | 1.000 27 | 999.73 | 42.17 | 0.151 07 |
| 1.000 88 | 999.12 | 63.10 | 0.224 44 | 15 | 1.000 88 | 999.12 | 63.11 | 0.224 44 | 15 | 1.000 88 | 999.13 | 63.12 | 0.224 44 |
| 1.001 78 | 998.22 | 84.03 | 0.296 46 | 20 | 1.001 78 | 998.22 | 84.04 | 0.296 45 | 20 | 1.001 77 | 998.23 | 84.05 | 0.296 45 |
| 1.002 95 | 997.06 | 104.95 | 0.367 19 | 25 | 1.002 94 | 997.07 | 104.96 | 0.367 19 | 25 | 1.002 94 | 997.07 | 104.97 | 0.367 19 |
| 1.004 36 | 995.66 | 125.85 | 0.436 72 | 30 | 1.004 35 | 995.67 | 125.86 | 0.436 71 | 30 | 1.004 35 | 995.67 | 125.87 | 0.436 71 |
| 1.005 99 | 994.05 | 146.75 | 0.505 09 | 35 | 1.005 99 | 994.05 | 146.75 | 0.505 08 | 35 | 1.005 98 | 994.05 | 146.76 | 0.505 08 |
| 1.007 83 | 992.23 | 167.64 | 0.572 35 | 40 | 1.007 83 | 992.23 | 167.65 | 0.572 35 | 40 | 1.007 82 | 992.24 | 167.66 | 0.572 35 |
| 1.009 87 | 990.23 | 188.54 | 0.638 56 | 45 | 1.009 87 | 990.23 | 188.55 | 0.638 56 | 45 | 1.009 86 | 990.23 | 188.56 | 0.638 55 |
| 1.012 10 | 988.05 | 209.44 | 0.703 75 | 50 | 1.012 09 | 988.05 | 209.45 | 0.703 75 | 50 | 1.012 09 | 988.06 | 209.46 | 0.703 74 |
| 1.014 50 | 985.71 | 230.35 | 0.767 97 | 55 | 1.014 50 | 985.71 | 230.36 | 0.767 96 | 55 | 1.014 49 | 985.71 | 230.37 | 0.767 96 |
| 1.017 08 | 983.21 | 251.27 | 0.831 23 | 60 | 1.017 07 | 983.21 | 251.28 | 0.831 23 | 60 | 1.017 07 | 983.22 | 251.29 | 0.831 22 |
| 1.019 82 | 980.56 | 272.20 | 0.893 59 | 65 | 1.019 82 | 980.57 | 272.21 | 0.893 59 | 65 | 1.019 81 | 980.57 | 272.22 | 0.893 58 |
| 1.022 73 | 977.78 | 293.15 | 0.955 07 | 70 | 1.022 72 | 977.78 | 293.15 | 0.955 07 | 70 | 1.022 72 | 977.79 | 293.16 | 0.955 06 |
| 1.025 79 | 974.86 | 314.10 | 1.0157 | 75 | 1.025 79 | 974.86 | 314.11 | 1.0157 | 75 | 1.025 78 | 974.86 | 314.12 | 1.0157 |
| 1.029 01 | 971.80 | 335.08 | 1.0755 | 80 | 1.029 01 | 971.81 | 335.09 | 1.0755 | 80 | 1.029 01 | 971.81 | 335.09 | 1.0755 |
| 1.032 39 | 968.62 | 356.07 | 1.1346 | 85 | 1.032 39 | 968.63 | 356.08 | 1.1345 | 85 | 1.032 38 | 968.63 | 356.09 | 1.1345 |
| 1.035 92 | 965.32 | 377.09 | 1.1928 | 90 | 1.035 92 | 965.33 | 377.09 | 1.1928 | 90 | 1.035 91 | 965.33 | 377.10 | 1.1928 |
| 1.039 61 | 961.90 | 398.12 | 1.2504 | 95 | 1.039 60 | 961.91 | 398.13 | 1.2504 | 95 | 1.039 60 | 961.91 | 398.14 | 1.2503 |
| 1.043 45 | 958.36 | 419.19 | 1.3072 | 100 | 1.043 44 | 958.37 | 419.20 | 1.3072 | 100 | 1.043 44 | 958.37 | 419.20 | 1.3072 |
| 1.047 44 | 954.71 | 440.28 | 1.3633 | 105 | 1.047 43 | 954.71 | 440.29 | 1.3633 | 105 | 1.047 43 | 954.72 | 440.30 | 1.3633 |
| 1336.4 | 0.748 30 | 2692.7 | 7.2868 | 110 | 1239.1 | 0.807 04 | 2691.5 | 7.2500 | 110 | 1.051 58 | 950.95 | 461.42 | 1.4188 |
| 1355.3 | 0.737 82 | 2703.2 | 7.3138 | 115 | 1256.8 | 0.795 65 | 2702.0 | 7.2773 | 115 | 1171.4 | 0.853 65 | 2700.8 | 7.2430 |
| 1374.2 | 0.727 68 | 2713.5 | 7.3403 | 120 | 1274.5 | 0.784 65 | 2712.4 | 7.3039 | 120 | 1188.0 | 0.841 77 | 2711.4 | 7.2699 |
| 1393.0 | 0.717 87 | 2723.8 | 7.3663 | 125 | 1292.0 | 0.774 01 | 2722.8 | 7.3301 | 125 | 1204.4 | 0.830 28 | 2721.8 | 7.2962 |
| 1411.7 | 0.708 36 | 2734.0 | 7.3917 | 130 | 1309.4 | 0.763 70 | 2733.0 | 7.3557 | 130 | 1220.8 | 0.819 16 | 2732.1 | 7.3220 |
| 1430.3 | 0.699 13 | 2744.1 | 7.4168 | 135 | 1326.8 | 0.753 70 | 2743.3 | 7.3809 | 135 | 1237.0 | 0.808 38 | 2742.4 | 7.3473 |
| 1448.9 | 0.690 17 | 2754.3 | 7.4414 | 140 | 1344.1 | 0.743 99 | 2753.4 | 7.4057 | 140 | 1253.3 | 0.797 92 | 2752.6 | 7.3722 |
| 1467.4 | 0.681 47 | 2764.3 | 7.4657 | 145 | 1361.3 | 0.734 57 | 2763.6 | 7.4300 | 145 | 1269.4 | 0.787 77 | 2762.8 | 7.3967 |
| 1485.9 | 0.673 00 | 2774.4 | 7.4896 | 150 | 1378.5 | 0.725 40 | 2773.6 | 7.4540 | 150 | 1285.5 | 0.777 90 | 2772.9 | 7.4208 |
| 1504.3 | 0.664 77 | 2784.4 | 7.5132 | 155 | 1395.7 | 0.716 49 | 2783.7 | 7.4777 | 155 | 1301.6 | 0.768 31 | 2783.0 | 7.4445 |
| 1522.7 | 0.656 75 | 2794.4 | 7.5364 | 160 | 1412.8 | 0.707 82 | 2793.8 | 7.5010 | 160 | 1317.6 | 0.758 97 | 2793.1 | 7.4679 |
| 1541.0 | 0.648 93 | 2804.4 | 7.5593 | 165 | 1429.9 | 0.699 37 | 2803.8 | 7.5240 | 165 | 1333.5 | 0.749 88 | 2803.1 | 7.4910 |
| 1559.3 | 0.641 32 | 2814.4 | 7.5819 | 170 | 1446.9 | 0.691 14 | 2813.8 | 7.5467 | 170 | 1349.5 | 0.741 03 | 2813.2 | 7.5138 |
| 1577.6 | 0.633 89 | 2824.3 | 7.6043 | 175 | 1463.9 | 0.683 11 | 2823.8 | 7.5691 | 175 | 1365.4 | 0.732 40 | 2823.2 | 7.5363 |
| 1595.8 | 0.626 65 | 2834.3 | 7.6264 | 180 | 1480.9 | 0.675 28 | 2833.7 | 7.5912 | 180 | 1381.3 | 0.723 98 | 2833.2 | 7.5585 |
| 1614.0 | 0.619 58 | 2844.2 | 7.6482 | 185 | 1497.8 | 0.667 65 | 2843.7 | 7.6131 | 185 | 1397.1 | 0.715 77 | 2843.2 | 7.5804 |
| 1632.2 | 0.612 68 | 2854.2 | 7.6698 | 190 | 1514.7 | 0.660 19 | 2853.7 | 7.6347 | 190 | 1412.9 | 0.707 76 | 2853.2 | 7.6021 |
| 1650.3 | 0.605 94 | 2864.1 | 7.6911 | 195 | 1531.6 | 0.652 91 | 2863.6 | 7.6561 | 195 | 1428.7 | 0.699 93 | 2863.1 | 7.6235 |
| 1668.5 | 0.599 35 | 2874.0 | 7.7122 | 200 | 1548.5 | 0.645 79 | 2873.6 | 7.6773 | 200 | 1444.5 | 0.692 29 | 2873.1 | 7.6447 |
| 1704.7 | 0.586 62 | 2893.9 | 7.7538 | 210 | 1582.2 | 0.632 05 | 2893.5 | 7.7189 | 210 | 1476.0 | 0.677 52 | 2893.0 | 7.6864 |
| 1740.8 | 0.574 43 | 2913.8 | 7.7945 | 220 | 1615.8 | 0.618 90 | 2913.4 | 7.7597 | 220 | 1507.4 | 0.663 40 | 2913.0 | 7.7272 |
| 1776.9 | 0.562 77 | 2933.7 | 7.8344 | 230 | 1649.3 | 0.606 30 | 2933.3 | 7.7996 | 230 | 1538.8 | 0.649 88 | 2932.9 | 7.7672 |
| 1813.0 | 0.551 58 | 2953.6 | 7.8736 | 240 | 1682.8 | 0.594 23 | 2953.2 | 7.8389 | 240 | 1570.1 | 0.636 92 | 2952.9 | 7.8065 |
| 1849.0 | 0.540 84 | 2973.5 | 7.9121 | 250 | 1716.3 | 0.582 65 | 2973.2 | 7.8774 | 250 | 1601.3 | 0.624 48 | 2972.9 | 7.8451 |
| 1884.9 | 0.530 53 | 2993.5 | 7.9499 | 260 | 1749.7 | 0.571 52 | 2993.2 | 7.9153 | 260 | 1632.5 | 0.612 54 | 2992.9 | 7.8830 |
| 1920.8 | 0.520 61 | 3013.5 | 7.9871 | 270 | 1783.1 | 0.560 82 | 3013.2 | 7.9525 | 270 | 1663.7 | 0.601 06 | 3012.9 | 7.9202 |
| 1956.7 | 0.511 06 | 3033.6 | 8.0237 | 280 | 1816.4 | 0.550 52 | 3033.3 | 7.9891 | 280 | 1694.9 | 0.590 01 | 3033.0 | 7.9569 |
| 1992.6 | 0.501 86 | 3053.7 | 8.0597 | 290 | 1849.8 | 0.540 61 | 3053.4 | 8.0251 | 290 | 1726.0 | 0.579 37 | 3053.1 | 7.9929 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.13 MPa ($t_s = 107.109\text{ }^{\circ}\text{C}$) | | | | | $t, ^{\circ}\text{C}$ | 0.14 MPa ($t_s = 109.292\text{ }^{\circ}\text{C}$) | | | | | $t, ^{\circ}\text{C}$ | 0.15 MPa ($t_s = 111.349\text{ }^{\circ}\text{C}$) | | | | |
|--|----------|--------|--------|--|-----------------------|--|----------|--------|--------|--|-----------------------|--|----------|--------|--------|--|
| v | ρ | h | s | | | v | ρ | h | s | | | v | ρ | h | s | |
| 2028.4 | 0.493 00 | 3073.8 | 8.0951 | | 300 | 1883.1 | 0.531 05 | 3073.5 | 8.0606 | | 300 | 1757.1 | 0.569 12 | 3073.3 | 8.0284 | |
| 2064.2 | 0.484 44 | 3094.0 | 8.1300 | | 310 | 1916.3 | 0.521 83 | 3093.7 | 8.0955 | | 310 | 1788.2 | 0.559 23 | 3093.5 | 8.0634 | |
| 2100.0 | 0.476 19 | 3114.2 | 8.1644 | | 320 | 1949.6 | 0.512 93 | 3114.0 | 8.1300 | | 320 | 1819.2 | 0.549 68 | 3113.8 | 8.0978 | |
| 2135.8 | 0.468 21 | 3134.5 | 8.1984 | | 330 | 1982.8 | 0.504 33 | 3134.3 | 8.1639 | | 330 | 1850.3 | 0.540 46 | 3134.1 | 8.1318 | |
| 2171.5 | 0.460 50 | 3154.9 | 8.2318 | | 340 | 2016.0 | 0.496 02 | 3154.7 | 8.1974 | | 340 | 1881.3 | 0.531 55 | 3154.5 | 8.1653 | |
| 2207.3 | 0.453 05 | 3175.3 | 8.2648 | | 350 | 2049.2 | 0.487 98 | 3175.1 | 8.2304 | | 350 | 1912.3 | 0.522 93 | 3174.9 | 8.1983 | |
| 2243.0 | 0.445 83 | 3195.7 | 8.2974 | | 360 | 2082.4 | 0.480 21 | 3195.5 | 8.2630 | | 360 | 1943.3 | 0.514 59 | 3195.3 | 8.2309 | |
| 2278.7 | 0.438 85 | 3216.2 | 8.3295 | | 370 | 2115.6 | 0.472 68 | 3216.0 | 8.2951 | | 370 | 1974.3 | 0.506 52 | 3215.9 | 8.2631 | |
| 2314.4 | 0.432 08 | 3236.8 | 8.3613 | | 380 | 2148.8 | 0.465 38 | 3236.6 | 8.3269 | | 380 | 2005.2 | 0.498 70 | 3236.4 | 8.2948 | |
| 2350.1 | 0.425 52 | 3257.4 | 8.3926 | | 390 | 2181.9 | 0.458 31 | 3257.3 | 8.3582 | | 390 | 2036.2 | 0.491 12 | 3257.1 | 8.3262 | |
| 2385.8 | 0.419 15 | 3278.1 | 8.4236 | | 400 | 2215.1 | 0.451 46 | 3277.9 | 8.3892 | | 400 | 2067.1 | 0.483 76 | 3277.8 | 8.3572 | |
| 2421.4 | 0.412 98 | 3298.8 | 8.4542 | | 410 | 2248.2 | 0.444 80 | 3298.7 | 8.4198 | | 410 | 2098.1 | 0.476 63 | 3298.5 | 8.3878 | |
| 2457.1 | 0.406 99 | 3319.7 | 8.4844 | | 420 | 2281.3 | 0.438 34 | 3319.5 | 8.4500 | | 420 | 2129.0 | 0.469 71 | 3319.4 | 8.4180 | |
| 2492.7 | 0.401 17 | 3340.5 | 8.5143 | | 430 | 2314.4 | 0.432 07 | 3340.4 | 8.4799 | | 430 | 2159.9 | 0.462 99 | 3340.3 | 8.4480 | |
| 2528.4 | 0.395 51 | 3361.5 | 8.5439 | | 440 | 2347.5 | 0.425 98 | 3361.3 | 8.5095 | | 440 | 2190.8 | 0.456 45 | 3361.2 | 8.4775 | |
| 2564.0 | 0.390 01 | 3382.5 | 8.5731 | | 450 | 2380.6 | 0.420 06 | 3382.3 | 8.5388 | | 450 | 2221.7 | 0.450 10 | 3382.2 | 8.5068 | |
| 2599.6 | 0.384 67 | 3403.5 | 8.6020 | | 460 | 2413.7 | 0.414 30 | 3403.4 | 8.5677 | | 460 | 2252.6 | 0.443 93 | 3403.3 | 8.5357 | |
| 2635.3 | 0.379 47 | 3424.6 | 8.6306 | | 470 | 2446.8 | 0.408 70 | 3424.5 | 8.5963 | | 470 | 2283.5 | 0.437 93 | 3424.4 | 8.5644 | |
| 2670.9 | 0.374 41 | 3445.8 | 8.6590 | | 480 | 2479.9 | 0.403 24 | 3445.7 | 8.6246 | | 480 | 2314.4 | 0.432 08 | 3445.6 | 8.5927 | |
| 2706.5 | 0.369 48 | 3467.1 | 8.6870 | | 490 | 2513.0 | 0.397 94 | 3467.0 | 8.6527 | | 490 | 2345.3 | 0.426 39 | 3466.9 | 8.6207 | |
| 2742.1 | 0.364 68 | 3488.4 | 8.7148 | | 500 | 2546.0 | 0.392 77 | 3488.3 | 8.6804 | | 500 | 2376.1 | 0.420 85 | 3488.2 | 8.6485 | |
| 2813.3 | 0.355 46 | 3531.3 | 8.7695 | | 520 | 2612.2 | 0.382 82 | 3531.2 | 8.7352 | | 520 | 2437.9 | 0.410 20 | 3531.1 | 8.7032 | |
| 2884.5 | 0.346 68 | 3574.4 | 8.8231 | | 540 | 2678.3 | 0.373 37 | 3574.3 | 8.7889 | | 540 | 2499.6 | 0.400 07 | 3574.2 | 8.7569 | |
| 2955.6 | 0.338 34 | 3617.8 | 8.8759 | | 560 | 2744.4 | 0.364 38 | 3617.7 | 8.8416 | | 560 | 2561.3 | 0.390 43 | 3617.6 | 8.8096 | |
| 3026.8 | 0.330 38 | 3661.4 | 8.9276 | | 580 | 2810.5 | 0.355 81 | 3661.3 | 8.8934 | | 580 | 2623.0 | 0.381 25 | 3661.2 | 8.8614 | |
| 3097.9 | 0.322 79 | 3705.3 | 8.9785 | | 600 | 2876.5 | 0.347 64 | 3705.3 | 8.9443 | | 600 | 2684.6 | 0.372 49 | 3705.2 | 8.9124 | |
| 3169.1 | 0.315 55 | 3749.6 | 9.0286 | | 620 | 2942.6 | 0.339 84 | 3749.5 | 8.9943 | | 620 | 2746.3 | 0.364 13 | 3749.4 | 8.9624 | |
| 3240.2 | 0.308 62 | 3794.0 | 9.0779 | | 640 | 3008.6 | 0.332 38 | 3794.0 | 9.0436 | | 640 | 2808.0 | 0.356 13 | 3793.9 | 9.0117 | |
| 3311.3 | 0.301 99 | 3838.8 | 9.1264 | | 660 | 3074.7 | 0.325 24 | 3838.7 | 9.0921 | | 660 | 2869.6 | 0.348 48 | 3838.7 | 9.0602 | |
| 3382.4 | 0.295 65 | 3883.9 | 9.1741 | | 680 | 3140.7 | 0.318 40 | 3883.8 | 9.1399 | | 680 | 2931.2 | 0.341 15 | 3883.7 | 9.1080 | |
| 3453.5 | 0.289 56 | 3929.2 | 9.2212 | | 700 | 3206.7 | 0.311 84 | 3929.1 | 9.1869 | | 700 | 2992.9 | 0.334 13 | 3929.1 | 9.1550 | |
| 3524.6 | 0.283 72 | 3974.8 | 9.2676 | | 720 | 3272.8 | 0.305 55 | 3974.8 | 9.2333 | | 720 | 3054.5 | 0.327 39 | 3974.7 | 9.2014 | |
| 3595.7 | 0.278 11 | 4020.7 | 9.3133 | | 740 | 3338.8 | 0.299 51 | 4020.6 | 9.2791 | | 740 | 3116.1 | 0.320 91 | 4020.6 | 9.2472 | |
| 3666.8 | 0.272 72 | 4066.9 | 9.3585 | | 760 | 3404.8 | 0.293 70 | 4066.8 | 9.3242 | | 760 | 3177.7 | 0.314 69 | 4066.8 | 9.2923 | |
| 3737.9 | 0.267 53 | 4113.3 | 9.4030 | | 780 | 3470.8 | 0.288 12 | 4113.3 | 9.3688 | | 780 | 3239.4 | 0.308 70 | 4113.2 | 9.3369 | |
| 3808.9 | 0.262 54 | 4160.1 | 9.4470 | | 800 | 3536.8 | 0.282 74 | 4160.0 | 9.4127 | | 800 | 3301.0 | 0.302 94 | 4160.0 | 9.3808 | |
| 3880.0 | 0.257 73 | 4207.1 | 9.4904 | | 820 | 3602.8 | 0.277 56 | 4207.0 | 9.4561 | | 820 | 3362.6 | 0.297 39 | 4207.0 | 9.4243 | |
| 3951.1 | 0.253 10 | 4254.4 | 9.5332 | | 840 | 3668.8 | 0.272 57 | 4254.3 | 9.4990 | | 840 | 3424.2 | 0.292 04 | 4254.3 | 9.4671 | |
| 4022.1 | 0.248 62 | 4301.9 | 9.5756 | | 860 | 3734.8 | 0.267 75 | 4301.9 | 9.5414 | | 860 | 3485.8 | 0.286 88 | 4301.9 | 9.5095 | |
| 4093.2 | 0.244 31 | 4349.8 | 9.6174 | | 880 | 3800.8 | 0.263 10 | 4349.7 | 9.5832 | | 880 | 3547.3 | 0.281 90 | 4349.7 | 9.5513 | |
| 4164.2 | 0.240 14 | 4397.9 | 9.6588 | | 900 | 3866.8 | 0.258 61 | 4397.9 | 9.6246 | | 900 | 3608.9 | 0.277 09 | 4397.8 | 9.5927 | |
| 4235.3 | 0.236 11 | 4446.3 | 9.6997 | | 920 | 3932.7 | 0.254 28 | 4446.2 | 9.6655 | | 920 | 3670.5 | 0.272 44 | 4446.2 | 9.6336 | |
| 4306.4 | 0.232 22 | 4494.9 | 9.7401 | | 940 | 3998.7 | 0.250 08 | 4494.9 | 9.7059 | | 940 | 3732.1 | 0.267 95 | 4494.9 | 9.6740 | |
| 4377.4 | 0.228 45 | 4543.9 | 9.7801 | | 960 | 4064.7 | 0.246 02 | 4543.8 | 9.7459 | | 960 | 3793.7 | 0.263 60 | 4543.8 | 9.7140 | |
| 4448.4 | 0.224 80 | 4593.0 | 9.8197 | | 980 | 4130.7 | 0.242 09 | 4593.0 | 9.7855 | | 980 | 3855.3 | 0.259 39 | 4593.0 | 9.7536 | |
| 4519.5 | 0.221 26 | 4642.5 | 9.8588 | | 1000 | 4196.6 | 0.238 29 | 4642.4 | 9.8246 | | 1000 | 3916.8 | 0.255 31 | 4642.4 | 9.7927 | |
| 4874.7 | 0.205 14 | 4893.5 | 10.049 | | 1100 | 4526.5 | 0.220 92 | 4893.4 | 10.014 | | 1100 | 4224.7 | 0.236 70 | 4893.4 | 9.9825 | |
| 5229.8 | 0.191 21 | 5150.5 | 10.229 | | 1200 | 4856.3 | 0.205 92 | 5150.5 | 10.195 | | 1200 | 4532.5 | 0.220 63 | 5150.5 | 10.163 | |
| 5585.0 | 0.179 05 | 5413.2 | 10.402 | | 1300 | 5186.0 | 0.192 83 | 5413.2 | 10.368 | | 1300 | 4840.3 | 0.206 60 | 5413.2 | 10.336 | |
| 5940.1 | 0.168 35 | 5681.1 | 10.567 | | 1400 | 5515.8 | 0.181 30 | 5681.1 | 10.533 | | 1400 | 5148.1 | 0.194 25 | 5681.1 | 10.501 | |
| 6295.2 | 0.158 85 | 5953.8 | 10.725 | | 1500 | 5845.5 | 0.171 07 | 5953.8 | 10.691 | | 1500 | 5455.8 | 0.183 29 | 5953.8 | 10.659 | |
| 6650.2 | 0.150 37 | 6231.0 | 10.877 | | 1600 | 6175.2 | 0.161 94 | 6231.0 | 10.843 | | 1600 | 5763.6 | 0.173 50 | 6231.0 | 10.811 | |
| 7360.4 | 0.135 86 | 6797.1 | 11.164 | | 1800 | 6834.7 | 0.146 31 | 6797.1 | 11.130 | | 1800 | 6379.0 | 0.156 76 | 6797.1 | 11.098 | |
| 8070.5 | 0.123 91 | 7377.0 | 11.431 | | 2000 | 7494.0 | 0.133 44 | 7377.0 | 11.397 | | 2000 | 6994.5 | 0.142 97 | 7377.0 | 11.365 | |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.16 MPa ($t_s = 113.297\text{ }^{\circ}\text{C}$) | | | | | 0.18 MPa ($t_s = 116.911\text{ }^{\circ}\text{C}$) | | | | | 0.20 MPa ($t_s = 120.210\text{ }^{\circ}\text{C}$) | | | | |
|--|----------|---------|-----------|-----------------------|--|---------|---------|-----------|-----------------------|--|---------|---------|-----------|-----------------------|
| v | ρ | h | s | $t, ^{\circ}\text{C}$ | v | ρ | h | s | $t, ^{\circ}\text{C}$ | v | ρ | h | s | $t, ^{\circ}\text{C}$ |
| 1.054 40 | 948.41 | 475.38 | 1.4551 | $t_s(\text{L})$ | 1.057 56 | 945.57 | 490.70 | 1.4945 | $t_s(\text{L})$ | 1.060 52 | 942.94 | 504.70 | 1.5302 | $t_s(\text{L})$ |
| 1091.4 | 0.916 29 | 2696.0 | 7.2014 | $t_s(\text{V})$ | 977.47 | 1.0230 | 2701.4 | 7.1621 | $t_s(\text{V})$ | 885.68 | 1.1291 | 2706.2 | 7.1269 | $t_s(\text{V})$ |
| 1.000 13 | 999.87 | 0.12 | -0.000 14 | 0 | 1.000 12 | 999.88 | 0.14 | -0.000 14 | 0 | 1.000 11 | 999.89 | 0.16 | -0.000 14 | 0 |
| 1.000 00 | 1000.00 | 21.18 | 0.076 25 | 5 | 0.999 99 | 1000.01 | 21.20 | 0.076 25 | 5 | 0.999 98 | 1000.02 | 21.22 | 0.076 25 | 5 |
| 1.000 27 | 999.73 | 42.18 | 0.151 07 | 10 | 1.000 26 | 999.74 | 42.20 | 0.151 07 | 10 | 1.000 25 | 999.75 | 42.22 | 0.151 07 | 10 |
| 1.000 87 | 999.13 | 63.13 | 0.224 44 | 15 | 1.000 86 | 999.14 | 63.15 | 0.224 44 | 15 | 1.000 85 | 999.15 | 63.17 | 0.224 43 | 15 |
| 1.001 77 | 998.23 | 84.06 | 0.296 45 | 20 | 1.001 76 | 998.24 | 84.08 | 0.296 45 | 20 | 1.001 75 | 998.25 | 84.10 | 0.296 44 | 20 |
| 1.002 93 | 997.07 | 104.97 | 0.367 18 | 25 | 1.002 93 | 997.08 | 104.99 | 0.367 18 | 25 | 1.002 92 | 997.09 | 105.01 | 0.367 17 | 25 |
| 1.004 34 | 995.68 | 125.88 | 0.436 71 | 30 | 1.004 33 | 995.68 | 125.89 | 0.436 70 | 30 | 1.004 33 | 995.69 | 125.91 | 0.436 70 | 30 |
| 1.005 98 | 994.06 | 146.77 | 0.505 08 | 35 | 1.005 97 | 994.07 | 146.79 | 0.505 07 | 35 | 1.005 96 | 994.08 | 146.81 | 0.505 06 | 35 |
| 1.007 82 | 992.24 | 167.67 | 0.572 34 | 40 | 1.007 81 | 992.25 | 167.69 | 0.572 33 | 40 | 1.007 80 | 992.26 | 167.70 | 0.572 33 | 40 |
| 1.009 86 | 990.24 | 188.57 | 0.638 55 | 45 | 1.009 85 | 990.25 | 188.58 | 0.638 54 | 45 | 1.009 84 | 990.26 | 188.60 | 0.638 53 | 45 |
| 1.012 08 | 988.06 | 209.47 | 0.703 74 | 50 | 1.012 07 | 988.07 | 209.49 | 0.703 73 | 50 | 1.012 07 | 988.08 | 209.50 | 0.703 72 | 50 |
| 1.014 49 | 985.72 | 230.38 | 0.767 95 | 55 | 1.014 48 | 985.73 | 230.40 | 0.767 94 | 55 | 1.014 47 | 985.74 | 230.41 | 0.767 93 | 55 |
| 1.017 06 | 983.22 | 251.30 | 0.831 22 | 60 | 1.017 06 | 983.23 | 251.31 | 0.831 21 | 60 | 1.017 05 | 983.24 | 251.33 | 0.831 20 | 60 |
| 1.019 81 | 980.58 | 272.23 | 0.893 58 | 65 | 1.019 80 | 980.59 | 272.24 | 0.893 56 | 65 | 1.019 79 | 980.59 | 272.26 | 0.893 55 | 65 |
| 1.022 71 | 977.79 | 293.17 | 0.955 06 | 70 | 1.022 70 | 977.80 | 293.19 | 0.955 04 | 70 | 1.022 70 | 977.81 | 293.20 | 0.955 03 | 70 |
| 1.025 78 | 974.87 | 314.13 | 1.0157 | 75 | 1.025 77 | 974.88 | 314.14 | 1.0157 | 75 | 1.025 76 | 974.89 | 314.16 | 1.0157 | 75 |
| 1.029 00 | 971.82 | 335.10 | 1.0755 | 80 | 1.028 99 | 971.83 | 335.12 | 1.0755 | 80 | 1.028 98 | 971.83 | 335.13 | 1.0755 | 80 |
| 1.032 38 | 968.64 | 356.09 | 1.1345 | 85 | 1.032 37 | 968.65 | 356.11 | 1.1345 | 85 | 1.032 36 | 968.66 | 356.13 | 1.1345 | 85 |
| 1.035 91 | 965.34 | 377.11 | 1.1928 | 90 | 1.035 90 | 965.35 | 377.12 | 1.1928 | 90 | 1.035 89 | 965.35 | 377.14 | 1.1928 | 90 |
| 1.039 59 | 961.92 | 398.15 | 1.2503 | 95 | 1.039 58 | 961.92 | 398.16 | 1.2503 | 95 | 1.039 57 | 961.93 | 398.18 | 1.2503 | 95 |
| 1.043 43 | 958.38 | 419.21 | 1.3072 | 100 | 1.043 42 | 958.39 | 419.23 | 1.3071 | 100 | 1.043 41 | 958.40 | 419.24 | 1.3071 | 100 |
| 1.047 42 | 954.72 | 440.30 | 1.3633 | 105 | 1.047 41 | 954.73 | 440.32 | 1.3633 | 105 | 1.047 40 | 954.74 | 440.33 | 1.3633 | 105 |
| 1.051 57 | 950.96 | 461.43 | 1.4188 | 110 | 1.051 56 | 950.97 | 461.44 | 1.4188 | 110 | 1.051 55 | 950.98 | 461.46 | 1.4188 | 110 |
| 1.055 86 | 947.10 | 482.62 | 1.4736 | 115 | 1.055 85 | 947.11 | 482.63 | 1.4737 | 115 | 1.055 84 | 947.12 | 482.64 | 1.4737 | 115 |
| 1.060 32 | 943.11 | 503.81 | 1.5279 | 120 | 1.060 31 | 943.12 | 503.82 | 1.5280 | 120 | 1.060 30 | 943.13 | 503.83 | 1.5280 | 120 |
| 1.066 00 | 938.12 | 525.01 | 1.5831 | 125 | 1.066 00 | 938.13 | 525.02 | 1.5832 | 125 | 1.066 00 | 938.14 | 525.03 | 1.5832 | 125 |
| 1.072 00 | 933.13 | 546.21 | 1.6383 | 130 | 1.072 00 | 933.14 | 546.22 | 1.6384 | 130 | 1.072 00 | 933.15 | 546.23 | 1.6384 | 130 |
| 1.078 30 | 928.14 | 567.41 | 1.6935 | 135 | 1.078 30 | 928.15 | 567.42 | 1.6936 | 135 | 1.078 30 | 928.16 | 567.43 | 1.6936 | 135 |
| 1.085 00 | 923.15 | 588.61 | 1.7487 | 140 | 1.085 00 | 923.16 | 588.62 | 1.7488 | 140 | 1.085 00 | 923.17 | 588.63 | 1.7488 | 140 |
| 1.092 00 | 918.16 | 609.81 | 1.8039 | 145 | 1.092 00 | 918.17 | 609.82 | 1.8040 | 145 | 1.092 00 | 918.18 | 609.83 | 1.8040 | 145 |
| 1.099 30 | 913.17 | 631.01 | 1.8591 | 150 | 1.099 30 | 913.18 | 631.02 | 1.8592 | 150 | 1.099 30 | 913.19 | 631.03 | 1.8592 | 150 |
| 1.107 00 | 908.18 | 652.21 | 1.9143 | 155 | 1.107 00 | 908.19 | 652.22 | 1.9144 | 155 | 1.107 00 | 908.20 | 652.23 | 1.9144 | 155 |
| 1.115 00 | 903.19 | 673.41 | 1.9695 | 160 | 1.115 00 | 903.20 | 673.42 | 1.9696 | 160 | 1.115 00 | 903.21 | 673.43 | 1.9696 | 160 |
| 1.123 30 | 898.20 | 694.61 | 2.0247 | 165 | 1.123 30 | 898.21 | 694.62 | 2.0248 | 165 | 1.123 30 | 898.22 | 694.63 | 2.0248 | 165 |
| 1.132 00 | 893.21 | 715.81 | 2.0799 | 170 | 1.132 00 | 893.22 | 715.82 | 2.0800 | 170 | 1.132 00 | 893.23 | 715.83 | 2.0800 | 170 |
| 1.141 00 | 888.22 | 737.01 | 2.1351 | 175 | 1.141 00 | 888.23 | 737.02 | 2.1352 | 175 | 1.141 00 | 888.24 | 737.03 | 2.1352 | 175 |
| 1.150 30 | 883.23 | 758.21 | 2.1903 | 180 | 1.150 30 | 883.24 | 758.22 | 2.1904 | 180 | 1.150 30 | 883.25 | 758.23 | 2.1904 | 180 |
| 1.160 00 | 878.24 | 779.41 | 2.2455 | 185 | 1.160 00 | 878.25 | 779.42 | 2.2456 | 185 | 1.160 00 | 878.26 | 779.43 | 2.2456 | 185 |
| 1.170 00 | 873.25 | 800.61 | 2.3007 | 190 | 1.170 00 | 873.26 | 800.62 | 2.3008 | 190 | 1.170 00 | 873.27 | 800.63 | 2.3008 | 190 |
| 1.180 30 | 868.26 | 821.81 | 2.3559 | 195 | 1.180 30 | 868.27 | 821.82 | 2.3560 | 195 | 1.180 30 | 868.28 | 821.83 | 2.3560 | 195 |
| 1.191 00 | 863.27 | 843.01 | 2.4111 | 200 | 1.191 00 | 863.28 | 843.02 | 2.4112 | 200 | 1.191 00 | 863.29 | 843.03 | 2.4112 | 200 |
| 1.202 00 | 858.28 | 864.21 | 2.4663 | 205 | 1.202 00 | 858.29 | 864.22 | 2.4664 | 205 | 1.202 00 | 858.30 | 864.23 | 2.4664 | 205 |
| 1.213 30 | 853.29 | 885.41 | 2.5215 | 210 | 1.213 30 | 853.30 | 885.42 | 2.5216 | 210 | 1.213 30 | 853.31 | 885.43 | 2.5216 | 210 |
| 1.225 00 | 848.30 | 906.61 | 2.5767 | 215 | 1.225 00 | 848.31 | 906.62 | 2.5768 | 215 | 1.225 00 | 848.32 | 906.63 | 2.5768 | 215 |
| 1.237 00 | 843.31 | 927.81 | 2.6319 | 220 | 1.237 00 | 843.32 | 927.82 | 2.6320 | 220 | 1.237 00 | 843.33 | 927.83 | 2.6320 | 220 |
| 1.249 30 | 838.32 | 949.01 | 2.6871 | 225 | 1.249 30 | 838.33 | 949.02 | 2.6872 | 225 | 1.249 30 | 838.34 | 949.03 | 2.6872 | 225 |
| 1.262 00 | 833.33 | 970.21 | 2.7423 | 230 | 1.262 00 | 833.34 | 970.22 | 2.7424 | 230 | 1.262 00 | 833.35 | 970.23 | 2.7424 | 230 |
| 1.275 00 | 828.34 | 991.41 | 2.7975 | 235 | 1.275 00 | 828.35 | 991.42 | 2.7976 | 235 | 1.275 00 | 828.36 | 991.43 | 2.7976 | 235 |
| 1.288 30 | 823.35 | 1012.61 | 2.8527 | 240 | 1.288 30 | 823.36 | 1012.62 | 2.8528 | 240 | 1.288 30 | 823.37 | 1012.63 | 2.8528 | 240 |
| 1.302 00 | 818.36 | 1033.81 | 2.9079 | 245 | 1.302 00 | 818.37 | 1033.82 | 2.9080 | 245 | 1.302 00 | 818.38 | 1033.83 | 2.9080 | 245 |
| 1.316 00 | 813.37 | 1055.01 | 2.9631 | 250 | 1.316 00 | 813.38 | 1055.02 | 2.9632 | 250 | 1.316 00 | 813.39 | 1055.03 | 2.9632 | 250 |
| 1.330 30 | 808.38 | 1076.21 | 3.0183 | 255 | 1.330 30 | 808.39 | 1076.22 | 3.0184 | 255 | 1.330 30 | 808.40 | 1076.23 | 3.0184 | 255 |
| 1.345 00 | 803.39 | 1097.41 | 3.0735 | 260 | 1.345 00 | 803.40 | 1097.42 | 3.0736 | 260 | 1.345 00 | 803.41 | 1097.43 | 3.0736 | 260 |
| 1.360 00 | 798.40 | 1118.61 | 3.1287 | 265 | 1.360 00 | 798.41 | 1118.62 | 3.1288 | 265 | 1.360 00 | 798.42 | 1118.63 | 3.1288 | 265 |
| 1.375 30 | 793.41 | 1139.81 | 3.1839 | 270 | 1.375 30 | 793.42 | 1139.82 | 3.1840 | 270 | 1.375 30 | 793.43 | 1139.83 | 3.1840 | 270 |
| 1.391 00 | 788.42 | 1161.01 | 3.2391 | 275 | 1.391 00 | 788.43 | 1161.02 | 3.2392 | 275 | 1.391 00 | 788.44 | 1161.03 | 3.2392 | 275 |
| 1.407 00 | 783.43 | 1182.21 | 3.2943 | 280 | 1.407 00 | 783.44 | 1182.22 | 3.2944 | 280 | 1.407 00 | 783.45 | 1182.23 | 3.2944 | 280 |
| 1.423 30 | 778.44 | 1203.41 | 3.3495 | 285 | 1.423 30 | 778.45 | 1203.42 | 3.3496 | 285 | 1.423 30 | 778.46 | 1203.43 | 3.3496 | 285 |
| 1.440 00 | 773.45 | 1224.61 | 3.4047 | 290 | 1.440 00 | 773.46 | 1224.62 | 3.4048 | 290 | 1.440 00 | 773.47 | 1224.63 | 3.4048 | 290 |
| 1.457 00 | 768.46 | 1245.81 | 3.4599 | 295 | 1.457 00 | 768.47 | 1245.82 | 3.4600 | 295 | 1.457 00 | 768.48 | 1245.83 | 3.4600 | 295 |
| 1.474 30 | 763.47 | 1267.01 | 3.5151 | 300 | 1.474 30 | 763.48 | 1267.02 | 3.5152 | 300 | 1.474 30 | 763.49 | 1267.03 | 3.5152 | 300 |
| 1.492 00 | 758.48 | 1288.21 | 3.5703 | 305 | 1.492 00 | 758.49 | 1288.22 | 3.5704 | 305 | 1.492 00 | 758.50 | 1288.23 | 3.5704 | 305 |
| 1.510 30 | 753.49 | 1309.41 | 3.6255 | 310 | 1.510 30 | 753.50 | 1309.42 | 3.6256 | 310 | 1.510 30 | 753.51 | 1309.43 | 3.6256 | 310 |
| 1.529 00 | 748.50 | 1330.61 | 3.6807 | 315 | 1.529 00 | 748.51 | 1330.62 | 3.6808 | 315 | | | | | |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.16 MPa ($t_s = 113.297\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.18 MPa ($t_s = 116.911\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.20 MPa ($t_s = 120.210\text{ }^{\circ}\text{C}$) | | | |
|--|----------|--------|--------|-----------------------|--|----------|--------|--------|-----------------------|--|----------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1646.9 | 0.607 21 | 3073.1 | 7.9983 | 300 | 1463.2 | 0.683 44 | 3072.6 | 7.9433 | 300 | 1316.2 | 0.759 75 | 3072.1 | 7.8941 |
| 1676.0 | 0.596 64 | 3093.3 | 8.0333 | 310 | 1489.1 | 0.671 53 | 3092.8 | 7.9784 | 310 | 1339.6 | 0.746 48 | 3092.3 | 7.9291 |
| 1705.2 | 0.586 45 | 3113.6 | 8.0678 | 320 | 1515.1 | 0.660 04 | 3113.1 | 8.0129 | 320 | 1363.0 | 0.733 69 | 3112.7 | 7.9637 |
| 1734.3 | 0.576 61 | 3133.9 | 8.1018 | 330 | 1541.0 | 0.648 94 | 3133.5 | 8.0469 | 330 | 1386.3 | 0.721 33 | 3133.0 | 7.9977 |
| 1763.4 | 0.567 09 | 3154.2 | 8.1353 | 340 | 1566.9 | 0.638 22 | 3153.8 | 8.0804 | 340 | 1409.7 | 0.709 39 | 3153.4 | 8.0313 |
| 1792.5 | 0.557 89 | 3174.7 | 8.1683 | 350 | 1592.7 | 0.627 85 | 3174.3 | 8.1135 | 350 | 1433.0 | 0.697 85 | 3173.9 | 8.0644 |
| 1821.5 | 0.548 99 | 3195.2 | 8.2009 | 360 | 1618.6 | 0.617 82 | 3194.8 | 8.1461 | 360 | 1456.3 | 0.686 69 | 3194.4 | 8.0971 |
| 1850.6 | 0.540 37 | 3215.7 | 8.2331 | 370 | 1644.5 | 0.608 11 | 3215.3 | 8.1783 | 370 | 1479.5 | 0.675 88 | 3215.0 | 8.1293 |
| 1879.6 | 0.532 02 | 3236.3 | 8.2649 | 380 | 1670.3 | 0.598 70 | 3235.9 | 8.2101 | 380 | 1502.8 | 0.665 42 | 3235.6 | 8.1611 |
| 1908.7 | 0.523 93 | 3256.9 | 8.2962 | 390 | 1696.1 | 0.589 58 | 3256.6 | 8.2415 | 390 | 1526.1 | 0.655 27 | 3256.3 | 8.1925 |
| 1937.7 | 0.516 08 | 3277.6 | 8.3272 | 400 | 1721.9 | 0.580 74 | 3277.3 | 8.2725 | 400 | 1549.3 | 0.645 44 | 3277.0 | 8.2236 |
| 1966.7 | 0.508 47 | 3298.4 | 8.3578 | 410 | 1747.7 | 0.572 17 | 3298.1 | 8.3032 | 410 | 1572.6 | 0.635 90 | 3297.8 | 8.2542 |
| 1995.7 | 0.501 08 | 3319.2 | 8.3881 | 420 | 1773.5 | 0.563 85 | 3318.9 | 8.3334 | 420 | 1595.8 | 0.626 64 | 3318.7 | 8.2845 |
| 2024.7 | 0.493 91 | 3340.1 | 8.4180 | 430 | 1799.3 | 0.555 77 | 3339.8 | 8.3634 | 430 | 1619.0 | 0.617 65 | 3339.6 | 8.3145 |
| 2053.7 | 0.486 93 | 3361.1 | 8.4476 | 440 | 1825.1 | 0.547 92 | 3360.8 | 8.3930 | 440 | 1642.2 | 0.608 92 | 3360.5 | 8.3441 |
| 2082.6 | 0.480 16 | 3382.1 | 8.4769 | 450 | 1850.9 | 0.540 29 | 3381.8 | 8.4222 | 450 | 1665.5 | 0.600 44 | 3381.6 | 8.3734 |
| 2111.6 | 0.473 57 | 3403.2 | 8.5058 | 460 | 1876.6 | 0.532 87 | 3402.9 | 8.4512 | 460 | 1688.7 | 0.592 18 | 3402.7 | 8.4023 |
| 2140.6 | 0.467 16 | 3424.3 | 8.5344 | 470 | 1902.4 | 0.525 65 | 3424.1 | 8.4799 | 470 | 1711.9 | 0.584 16 | 3423.8 | 8.4310 |
| 2169.5 | 0.460 93 | 3445.5 | 8.5628 | 480 | 1928.2 | 0.518 63 | 3445.3 | 8.5082 | 480 | 1735.1 | 0.576 35 | 3445.0 | 8.4594 |
| 2198.5 | 0.454 86 | 3466.8 | 8.5908 | 490 | 1953.9 | 0.511 79 | 3466.5 | 8.5363 | 490 | 1758.2 | 0.568 75 | 3466.3 | 8.4874 |
| 2227.4 | 0.448 94 | 3488.1 | 8.6186 | 500 | 1979.7 | 0.505 14 | 3487.9 | 8.5641 | 500 | 1781.4 | 0.561 35 | 3487.7 | 8.5152 |
| 2285.3 | 0.437 57 | 3531.0 | 8.6734 | 520 | 2031.1 | 0.492 34 | 3530.8 | 8.6188 | 520 | 1827.8 | 0.547 12 | 3530.6 | 8.5700 |
| 2343.2 | 0.426 77 | 3574.1 | 8.7271 | 540 | 2082.6 | 0.480 17 | 3573.9 | 8.6725 | 540 | 1874.1 | 0.533 59 | 3573.7 | 8.6237 |
| 2401.1 | 0.416 48 | 3617.5 | 8.7798 | 560 | 2134.0 | 0.468 60 | 3617.3 | 8.7253 | 560 | 1920.4 | 0.520 72 | 3617.1 | 8.6765 |
| 2458.9 | 0.406 69 | 3661.2 | 8.8316 | 580 | 2185.5 | 0.457 57 | 3661.0 | 8.7771 | 580 | 1966.7 | 0.508 46 | 3660.8 | 8.7283 |
| 2516.7 | 0.397 34 | 3705.1 | 8.8825 | 600 | 2236.9 | 0.447 05 | 3705.0 | 8.8280 | 600 | 2013.0 | 0.496 77 | 3704.8 | 8.7792 |
| 2574.5 | 0.388 42 | 3749.3 | 8.9326 | 620 | 2288.3 | 0.437 01 | 3749.2 | 8.8781 | 620 | 2059.3 | 0.485 60 | 3749.0 | 8.8293 |
| 2632.4 | 0.379 89 | 3793.8 | 8.9819 | 640 | 2339.7 | 0.427 41 | 3793.7 | 8.9274 | 640 | 2105.6 | 0.474 93 | 3793.6 | 8.8786 |
| 2690.2 | 0.371 72 | 3838.6 | 9.0304 | 660 | 2391.1 | 0.418 22 | 3838.5 | 8.9759 | 660 | 2151.8 | 0.464 72 | 3838.4 | 8.9272 |
| 2748.0 | 0.363 91 | 3883.7 | 9.0781 | 680 | 2442.5 | 0.409 42 | 3883.6 | 9.0237 | 680 | 2198.1 | 0.454 94 | 3883.4 | 8.9750 |
| 2805.7 | 0.356 41 | 3929.0 | 9.1252 | 700 | 2493.8 | 0.400 99 | 3928.9 | 9.0708 | 700 | 2244.3 | 0.445 57 | 3928.8 | 9.0220 |
| 2863.5 | 0.349 22 | 3974.6 | 9.1716 | 720 | 2545.2 | 0.392 89 | 3974.5 | 9.1172 | 720 | 2290.6 | 0.436 57 | 3974.4 | 9.0685 |
| 2921.3 | 0.342 31 | 4020.5 | 9.2174 | 740 | 2596.6 | 0.385 12 | 4020.4 | 9.1629 | 740 | 2336.8 | 0.427 93 | 4020.3 | 9.1142 |
| 2979.1 | 0.335 68 | 4066.7 | 9.2625 | 760 | 2647.9 | 0.377 65 | 4066.6 | 9.2081 | 760 | 2383.0 | 0.419 63 | 4066.5 | 9.1594 |
| 3036.8 | 0.329 29 | 4113.2 | 9.3071 | 780 | 2699.3 | 0.370 47 | 4113.1 | 9.2526 | 780 | 2429.3 | 0.411 65 | 4113.0 | 9.2039 |
| 3094.6 | 0.323 14 | 4159.9 | 9.3510 | 800 | 2750.6 | 0.363 55 | 4159.8 | 9.2966 | 800 | 2475.5 | 0.403 96 | 4159.8 | 9.2479 |
| 3152.3 | 0.317 22 | 4207.0 | 9.3944 | 820 | 2802.0 | 0.356 89 | 4206.9 | 9.3400 | 820 | 2521.7 | 0.396 56 | 4206.8 | 9.2913 |
| 3210.1 | 0.311 52 | 4254.3 | 9.4373 | 840 | 2853.3 | 0.350 47 | 4254.2 | 9.3829 | 840 | 2567.9 | 0.389 42 | 4254.1 | 9.3342 |
| 3267.9 | 0.306 01 | 4301.8 | 9.4797 | 860 | 2904.7 | 0.344 27 | 4301.7 | 9.4253 | 860 | 2614.1 | 0.382 54 | 4301.7 | 9.3766 |
| 3325.6 | 0.300 70 | 4349.7 | 9.5215 | 880 | 2956.0 | 0.338 29 | 4349.6 | 9.4671 | 880 | 2660.3 | 0.375 89 | 4349.5 | 9.4184 |
| 3383.3 | 0.295 57 | 4397.8 | 9.5629 | 900 | 3007.3 | 0.332 52 | 4397.7 | 9.5085 | 900 | 2706.6 | 0.369 47 | 4397.6 | 9.4598 |
| 3441.1 | 0.290 61 | 4446.2 | 9.6038 | 920 | 3058.7 | 0.326 94 | 4446.1 | 9.5494 | 920 | 2752.8 | 0.363 27 | 4446.0 | 9.5007 |
| 3498.8 | 0.285 81 | 4494.8 | 9.6442 | 940 | 3110.0 | 0.321 54 | 4494.8 | 9.5898 | 940 | 2799.0 | 0.357 28 | 4494.7 | 9.5412 |
| 3556.6 | 0.281 17 | 4543.8 | 9.6842 | 960 | 3161.3 | 0.316 32 | 4543.7 | 9.6298 | 960 | 2845.1 | 0.351 48 | 4543.6 | 9.5812 |
| 3614.3 | 0.276 68 | 4592.9 | 9.7238 | 980 | 3212.7 | 0.311 27 | 4592.9 | 9.6694 | 980 | 2891.3 | 0.345 86 | 4592.8 | 9.6207 |
| 3672.0 | 0.272 33 | 4642.4 | 9.7629 | 1000 | 3264.0 | 0.306 38 | 4642.3 | 9.7085 | 1000 | 2937.5 | 0.340 42 | 4642.3 | 9.6599 |
| 3960.6 | 0.252 48 | 4893.4 | 9.9527 | 1100 | 3520.5 | 0.284 05 | 4893.3 | 9.8983 | 1100 | 3168.5 | 0.315 61 | 4893.3 | 9.8497 |
| 4249.2 | 0.235 34 | 5150.5 | 10.133 | 1200 | 3777.1 | 0.264 75 | 5150.4 | 10.079 | 1200 | 3399.4 | 0.294 17 | 5150.4 | 10.030 |
| 4537.8 | 0.220 37 | 5413.2 | 10.306 | 1300 | 4033.6 | 0.247 92 | 5413.1 | 10.252 | 1300 | 3630.2 | 0.275 46 | 5413.1 | 10.203 |
| 4826.3 | 0.207 20 | 5681.1 | 10.471 | 1400 | 4290.1 | 0.233 10 | 5681.1 | 10.417 | 1400 | 3861.1 | 0.258 99 | 5681.0 | 10.368 |
| 5114.9 | 0.195 51 | 5953.8 | 10.629 | 1500 | 4546.6 | 0.219 95 | 5953.8 | 10.575 | 1500 | 4091.9 | 0.244 38 | 5953.8 | 10.526 |
| 5403.4 | 0.185 07 | 6231.0 | 10.781 | 1600 | 4803.0 | 0.208 20 | 6231.0 | 10.727 | 1600 | 4322.8 | 0.231 33 | 6230.9 | 10.678 |
| 5980.4 | 0.167 21 | 6797.1 | 11.068 | 1800 | 5315.9 | 0.188 11 | 6797.1 | 11.014 | 1800 | 4784.4 | 0.209 01 | 6797.1 | 10.965 |
| 6557.3 | 0.152 50 | 7377.0 | 11.335 | 2000 | 5828.8 | 0.171 56 | 7376.9 | 11.281 | 2000 | 5246.0 | 0.190 62 | 7376.9 | 11.232 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.22 MPa ($t_s = 123.250\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.24 MPa ($t_s = 126.072\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.26 MPa ($t_s = 128.708\text{ }^{\circ}\text{C}$) | | | |
|--|----------|--------|-----------|-----------------------|--|----------|--------|-----------|-----------------------|--|---------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.063 30 | 940.47 | 517.63 | 1.5628 | $t_s(\text{L})$ | 1.065 94 | 938.13 | 529.64 | 1.5930 | $t_s(\text{L})$ | 1.068 46 | 935.93 | 540.87 | 1.6210 |
| 810.07 | 1.2345 | 2710.6 | 7.0951 | $t_s(\text{V})$ | 746.68 | 1.3393 | 2714.6 | 7.0661 | $t_s(\text{V})$ | 692.73 | 1.4436 | 2718.3 | 7.0394 |
| 1.000 10 | 999.90 | 0.18 | -0.000 14 | 0 | 1.000 09 | 999.91 | 0.20 | -0.000 14 | 0 | 1.000 08 | 999.92 | 0.22 | -0.000 14 |
| 0.999 98 | 1000.02 | 21.24 | 0.076 25 | 5 | 0.999 97 | 1000.03 | 21.26 | 0.076 25 | 5 | 0.999 96 | 1000.04 | 21.28 | 0.076 25 |
| 1.000 24 | 999.76 | 42.23 | 0.151 07 | 10 | 1.000 23 | 999.77 | 42.25 | 0.151 06 | 10 | 1.000 22 | 999.78 | 42.27 | 0.151 06 |
| 1.000 84 | 999.16 | 63.19 | 0.224 43 | 15 | 1.000 83 | 999.17 | 63.21 | 0.224 43 | 15 | 1.000 82 | 999.18 | 63.23 | 0.224 42 |
| 1.001 74 | 998.26 | 84.12 | 0.296 44 | 20 | 1.001 73 | 998.27 | 84.14 | 0.296 43 | 20 | 1.001 72 | 998.28 | 84.16 | 0.296 43 |
| 1.002 91 | 997.10 | 105.03 | 0.367 17 | 25 | 1.002 90 | 997.11 | 105.05 | 0.367 16 | 25 | 1.002 89 | 997.12 | 105.07 | 0.367 16 |
| 1.004 32 | 995.70 | 125.93 | 0.436 69 | 30 | 1.004 31 | 995.71 | 125.95 | 0.436 68 | 30 | 1.004 30 | 995.72 | 125.97 | 0.436 68 |
| 1.005 95 | 994.09 | 146.83 | 0.505 06 | 35 | 1.005 94 | 994.09 | 146.84 | 0.505 05 | 35 | 1.005 93 | 994.10 | 146.86 | 0.505 04 |
| 1.007 79 | 992.27 | 167.72 | 0.572 32 | 40 | 1.007 78 | 992.28 | 167.74 | 0.572 31 | 40 | 1.007 77 | 992.29 | 167.76 | 0.572 30 |
| 1.009 83 | 990.26 | 188.62 | 0.638 52 | 45 | 1.009 82 | 990.27 | 188.64 | 0.638 52 | 45 | 1.009 81 | 990.28 | 188.65 | 0.638 51 |
| 1.012 06 | 988.09 | 209.52 | 0.703 71 | 50 | 1.012 05 | 988.10 | 209.54 | 0.703 70 | 50 | 1.012 04 | 988.10 | 209.56 | 0.703 69 |
| 1.014 46 | 985.74 | 230.43 | 0.767 92 | 55 | 1.014 45 | 985.75 | 230.45 | 0.767 91 | 55 | 1.014 44 | 985.76 | 230.46 | 0.767 90 |
| 1.017 04 | 983.25 | 251.35 | 0.831 19 | 60 | 1.017 03 | 983.26 | 251.37 | 0.831 18 | 60 | 1.017 02 | 983.27 | 251.38 | 0.831 17 |
| 1.019 78 | 980.60 | 272.28 | 0.893 54 | 65 | 1.019 77 | 980.61 | 272.29 | 0.893 53 | 65 | 1.019 76 | 980.62 | 272.31 | 0.893 52 |
| 1.022 69 | 977.82 | 293.22 | 0.955 02 | 70 | 1.022 68 | 977.83 | 293.24 | 0.955 01 | 70 | 1.022 67 | 977.83 | 293.25 | 0.955 00 |
| 1.025 75 | 974.90 | 314.18 | 1.0157 | 75 | 1.025 74 | 974.90 | 314.19 | 1.0156 | 75 | 1.025 73 | 974.91 | 314.21 | 1.0156 |
| 1.028 97 | 971.84 | 335.15 | 1.0755 | 80 | 1.028 96 | 971.85 | 335.17 | 1.0755 | 80 | 1.028 95 | 971.86 | 335.18 | 1.0754 |
| 1.032 35 | 968.67 | 356.14 | 1.1345 | 85 | 1.032 34 | 968.67 | 356.16 | 1.1345 | 85 | 1.032 33 | 968.68 | 356.17 | 1.1345 |
| 1.035 88 | 965.36 | 377.16 | 1.1928 | 90 | 1.035 87 | 965.37 | 377.17 | 1.1927 | 90 | 1.035 86 | 965.38 | 377.19 | 1.1927 |
| 1.039 56 | 961.94 | 398.19 | 1.2503 | 95 | 1.039 55 | 961.95 | 398.21 | 1.2503 | 95 | 1.039 54 | 961.96 | 398.22 | 1.2503 |
| 1.043 40 | 958.40 | 419.26 | 1.3071 | 100 | 1.043 39 | 958.41 | 419.27 | 1.3071 | 100 | 1.043 38 | 958.42 | 419.29 | 1.3071 |
| 1.047 39 | 954.75 | 440.35 | 1.3633 | 105 | 1.047 38 | 954.76 | 440.36 | 1.3633 | 105 | 1.047 37 | 954.77 | 440.38 | 1.3632 |
| 1.051 54 | 950.99 | 461.47 | 1.4188 | 110 | 1.051 53 | 950.99 | 461.49 | 1.4187 | 110 | 1.051 52 | 951.00 | 461.50 | 1.4187 |
| 1.055 85 | 947.11 | 482.63 | 1.4736 | 115 | 1.055 84 | 947.12 | 482.64 | 1.4736 | 115 | 1.055 83 | 947.13 | 482.66 | 1.4736 |
| 1.060 31 | 943.12 | 503.83 | 1.5279 | 120 | 1.060 30 | 943.13 | 503.84 | 1.5279 | 120 | 1.060 29 | 943.14 | 503.85 | 1.5279 |
| 814.14 | 1.2283 | 2714.4 | 7.1047 | 125 | 1.064 93 | 939.03 | 525.08 | 1.5816 | 125 | 1.064 92 | 939.04 | 525.09 | 1.5815 |
| 825.67 | 1.2111 | 2725.3 | 7.1318 | 130 | 755.07 | 1.3244 | 2723.2 | 7.0876 | 130 | 695.30 | 1.4382 | 2721.2 | 7.0465 |
| 837.12 | 1.1946 | 2736.0 | 7.1582 | 135 | 765.66 | 1.3061 | 2734.1 | 7.1143 | 135 | 705.17 | 1.4181 | 2732.2 | 7.0736 |
| 848.48 | 1.1786 | 2746.6 | 7.1840 | 140 | 776.16 | 1.2884 | 2744.8 | 7.1405 | 140 | 714.95 | 1.3987 | 2743.0 | 7.1001 |
| 859.78 | 1.1631 | 2757.1 | 7.2093 | 145 | 786.60 | 1.2713 | 2755.4 | 7.1660 | 145 | 724.66 | 1.3800 | 2753.8 | 7.1259 |
| 871.02 | 1.1481 | 2767.6 | 7.2341 | 150 | 796.97 | 1.2547 | 2766.0 | 7.1911 | 150 | 734.31 | 1.3618 | 2764.4 | 7.1512 |
| 882.20 | 1.1335 | 2777.9 | 7.2585 | 155 | 807.29 | 1.2387 | 2776.5 | 7.2157 | 155 | 743.90 | 1.3443 | 2775.0 | 7.1760 |
| 893.34 | 1.1194 | 2788.3 | 7.2825 | 160 | 817.57 | 1.2231 | 2786.9 | 7.2399 | 160 | 753.44 | 1.3273 | 2785.5 | 7.2004 |
| 904.44 | 1.1057 | 2798.6 | 7.3062 | 165 | 827.79 | 1.2080 | 2797.2 | 7.2636 | 165 | 762.93 | 1.3107 | 2795.9 | 7.2243 |
| 915.50 | 1.0923 | 2808.8 | 7.3294 | 170 | 837.98 | 1.1933 | 2807.6 | 7.2871 | 170 | 772.39 | 1.2947 | 2806.3 | 7.2479 |
| 926.52 | 1.0793 | 2819.0 | 7.3524 | 175 | 848.14 | 1.1791 | 2817.8 | 7.3101 | 175 | 781.81 | 1.2791 | 2816.6 | 7.2711 |
| 937.51 | 1.0667 | 2829.2 | 7.3750 | 180 | 858.26 | 1.1652 | 2828.1 | 7.3329 | 180 | 791.19 | 1.2639 | 2826.9 | 7.2940 |
| 948.47 | 1.0543 | 2839.4 | 7.3973 | 185 | 868.35 | 1.1516 | 2838.3 | 7.3553 | 185 | 800.55 | 1.2491 | 2837.2 | 7.3165 |
| 959.41 | 1.0423 | 2849.5 | 7.4193 | 190 | 878.41 | 1.1384 | 2848.5 | 7.3774 | 190 | 809.87 | 1.2348 | 2847.4 | 7.3387 |
| 970.32 | 1.0306 | 2859.7 | 7.4411 | 195 | 888.45 | 1.1256 | 2858.7 | 7.3993 | 195 | 819.17 | 1.2207 | 2857.6 | 7.3607 |
| 981.20 | 1.0192 | 2869.8 | 7.4625 | 200 | 898.47 | 1.1130 | 2868.8 | 7.4208 | 200 | 828.45 | 1.2071 | 2867.8 | 7.3823 |
| 1002.9 | 0.997 09 | 2890.0 | 7.5048 | 210 | 918.43 | 1.0888 | 2889.1 | 7.4632 | 210 | 846.95 | 1.1807 | 2888.2 | 7.4249 |
| 1024.6 | 0.976 03 | 2910.1 | 7.5461 | 220 | 938.33 | 1.0657 | 2909.3 | 7.5046 | 220 | 865.37 | 1.1556 | 2908.5 | 7.4664 |
| 1046.1 | 0.955 90 | 2930.3 | 7.5865 | 230 | 958.16 | 1.0437 | 2929.5 | 7.5452 | 230 | 883.72 | 1.1316 | 2928.7 | 7.5071 |
| 1067.7 | 0.936 63 | 2950.4 | 7.6261 | 240 | 977.94 | 1.0226 | 2949.7 | 7.5849 | 240 | 902.03 | 1.1086 | 2949.0 | 7.5469 |
| 1089.1 | 0.918 16 | 2970.5 | 7.6650 | 250 | 997.67 | 1.0023 | 2969.9 | 7.6239 | 250 | 920.28 | 1.0866 | 2969.2 | 7.5860 |
| 1110.6 | 0.900 44 | 2990.7 | 7.7032 | 260 | 1017.4 | 0.982 93 | 2990.1 | 7.6621 | 260 | 938.49 | 1.0655 | 2989.4 | 7.6243 |
| 1132.0 | 0.883 41 | 3010.9 | 7.7407 | 270 | 1037.0 | 0.964 31 | 3010.3 | 7.6997 | 270 | 956.66 | 1.0453 | 3009.7 | 7.6619 |
| 1153.3 | 0.867 05 | 3031.1 | 7.7775 | 280 | 1056.6 | 0.946 40 | 3030.5 | 7.7366 | 280 | 974.81 | 1.0258 | 3030.0 | 7.6989 |
| 1174.7 | 0.851 30 | 3051.3 | 7.8138 | 290 | 1076.2 | 0.929 17 | 3050.8 | 7.7729 | 290 | 992.92 | 1.0071 | 3050.3 | 7.7353 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.22 MPa ($t_s = 123.250\text{ }^{\circ}\text{C}$) | | | | | $t_s, ^{\circ}\text{C}$ | 0.24 MPa ($t_s = 126.072\text{ }^{\circ}\text{C}$) | | | | | $t_s, ^{\circ}\text{C}$ | 0.26 MPa ($t_s = 128.708\text{ }^{\circ}\text{C}$) | | | | |
|--|----------|--------|--------|--|-------------------------|--|----------|--------|--------|--|-------------------------|--|----------|--------|--------|--|
| v | ρ | h | s | | | v | ρ | h | s | | | v | ρ | h | s | |
| 1196.0 | 0.836 13 | 3071.6 | 7.8494 | | 300 | 1095.8 | 0.912 58 | 3071.1 | 7.8086 | | 300 | 1011.0 | 0.989 12 | 3070.6 | 7.7710 | |
| 1217.3 | 0.821 50 | 3091.9 | 7.8845 | | 310 | 1115.3 | 0.896 60 | 3091.4 | 7.8438 | | 310 | 1029.1 | 0.971 76 | 3090.9 | 7.8063 | |
| 1238.5 | 0.807 40 | 3112.2 | 7.9191 | | 320 | 1134.8 | 0.881 17 | 3111.8 | 7.8784 | | 320 | 1047.1 | 0.955 01 | 3111.3 | 7.8409 | |
| 1259.8 | 0.793 78 | 3132.6 | 7.9532 | | 330 | 1154.3 | 0.866 29 | 3132.2 | 7.9125 | | 330 | 1065.1 | 0.938 85 | 3131.8 | 7.8751 | |
| 1281.0 | 0.780 63 | 3153.0 | 7.9868 | | 340 | 1173.8 | 0.851 91 | 3152.6 | 7.9462 | | 340 | 1083.1 | 0.923 25 | 3152.2 | 7.9087 | |
| 1302.2 | 0.767 91 | 3173.5 | 8.0200 | | 350 | 1193.3 | 0.838 01 | 3173.1 | 7.9793 | | 350 | 1101.1 | 0.908 17 | 3172.7 | 7.9419 | |
| 1323.4 | 0.755 61 | 3194.0 | 8.0526 | | 360 | 1212.8 | 0.824 57 | 3193.7 | 8.0121 | | 360 | 1119.1 | 0.893 58 | 3193.3 | 7.9747 | |
| 1344.6 | 0.743 70 | 3214.6 | 8.0849 | | 370 | 1232.2 | 0.811 56 | 3214.3 | 8.0443 | | 370 | 1137.1 | 0.879 47 | 3213.9 | 8.0070 | |
| 1365.8 | 0.732 17 | 3235.3 | 8.1167 | | 380 | 1251.6 | 0.798 97 | 3234.9 | 8.0762 | | 380 | 1155.0 | 0.865 80 | 3234.6 | 8.0389 | |
| 1387.0 | 0.721 00 | 3256.0 | 8.1482 | | 390 | 1271.0 | 0.786 76 | 3255.6 | 8.1077 | | 390 | 1172.9 | 0.852 56 | 3255.3 | 8.0704 | |
| 1408.1 | 0.710 17 | 3276.7 | 8.1792 | | 400 | 1290.4 | 0.774 93 | 3276.4 | 8.1387 | | 400 | 1190.9 | 0.839 73 | 3276.1 | 8.1014 | |
| 1429.3 | 0.699 66 | 3297.5 | 8.2099 | | 410 | 1309.8 | 0.763 46 | 3297.2 | 8.1694 | | 410 | 1208.8 | 0.827 28 | 3296.9 | 8.1322 | |
| 1450.4 | 0.689 47 | 3318.4 | 8.2402 | | 420 | 1329.2 | 0.752 32 | 3318.1 | 8.1998 | | 420 | 1226.7 | 0.815 20 | 3317.8 | 8.1625 | |
| 1471.5 | 0.679 57 | 3339.3 | 8.2702 | | 430 | 1348.6 | 0.741 51 | 3339.0 | 8.2297 | | 430 | 1244.6 | 0.803 48 | 3338.7 | 8.1925 | |
| 1492.6 | 0.669 95 | 3360.3 | 8.2998 | | 440 | 1368.0 | 0.731 01 | 3360.0 | 8.2594 | | 440 | 1262.5 | 0.792 09 | 3359.7 | 8.2222 | |
| 1513.8 | 0.660 61 | 3381.3 | 8.3291 | | 450 | 1387.3 | 0.720 81 | 3381.1 | 8.2887 | | 450 | 1280.4 | 0.781 03 | 3380.8 | 8.2515 | |
| 1534.9 | 0.651 53 | 3402.4 | 8.3581 | | 460 | 1406.7 | 0.710 89 | 3402.2 | 8.3177 | | 460 | 1298.2 | 0.770 27 | 3401.9 | 8.2805 | |
| 1556.0 | 0.642 69 | 3423.6 | 8.3868 | | 470 | 1426.0 | 0.701 24 | 3423.3 | 8.3464 | | 470 | 1316.1 | 0.759 81 | 3423.1 | 8.3092 | |
| 1577.1 | 0.634 09 | 3444.8 | 8.4151 | | 480 | 1445.4 | 0.691 86 | 3444.6 | 8.3748 | | 480 | 1334.0 | 0.749 64 | 3444.4 | 8.3376 | |
| 1598.1 | 0.625 73 | 3466.1 | 8.4432 | | 490 | 1464.7 | 0.682 72 | 3465.9 | 8.4029 | | 490 | 1351.8 | 0.739 73 | 3465.7 | 8.3657 | |
| 1619.2 | 0.617 58 | 3487.5 | 8.4710 | | 500 | 1484.1 | 0.673 83 | 3487.2 | 8.4307 | | 500 | 1369.7 | 0.730 09 | 3487.0 | 8.3935 | |
| 1661.4 | 0.601 91 | 3530.4 | 8.5258 | | 520 | 1522.7 | 0.656 72 | 3530.2 | 8.4855 | | 520 | 1405.4 | 0.711 54 | 3530.0 | 8.4483 | |
| 1703.5 | 0.587 02 | 3573.5 | 8.5796 | | 540 | 1561.4 | 0.640 47 | 3573.3 | 8.5392 | | 540 | 1441.1 | 0.693 92 | 3573.2 | 8.5021 | |
| 1745.6 | 0.572 86 | 3617.0 | 8.6323 | | 560 | 1600.0 | 0.625 01 | 3616.8 | 8.5920 | | 560 | 1476.7 | 0.677 17 | 3616.6 | 8.5549 | |
| 1787.7 | 0.559 36 | 3660.7 | 8.6842 | | 580 | 1638.6 | 0.610 28 | 3660.5 | 8.6439 | | 580 | 1512.4 | 0.661 20 | 3660.3 | 8.6068 | |
| 1829.8 | 0.546 50 | 3704.6 | 8.7351 | | 600 | 1677.2 | 0.596 23 | 3704.5 | 8.6948 | | 600 | 1548.0 | 0.645 98 | 3704.3 | 8.6578 | |
| 1871.9 | 0.534 21 | 3748.9 | 8.7852 | | 620 | 1715.8 | 0.582 82 | 3748.7 | 8.7449 | | 620 | 1583.7 | 0.631 44 | 3748.6 | 8.7079 | |
| 1914.0 | 0.522 46 | 3793.4 | 8.8345 | | 640 | 1754.4 | 0.570 01 | 3793.3 | 8.7943 | | 640 | 1619.3 | 0.617 55 | 3793.1 | 8.7572 | |
| 1956.1 | 0.511 23 | 3838.2 | 8.8831 | | 660 | 1792.9 | 0.557 74 | 3838.1 | 8.8428 | | 660 | 1654.9 | 0.604 26 | 3838.0 | 8.8057 | |
| 1998.1 | 0.500 47 | 3883.3 | 8.9309 | | 680 | 1831.5 | 0.546 00 | 3883.2 | 8.8906 | | 680 | 1690.5 | 0.591 54 | 3883.1 | 8.8536 | |
| 2040.2 | 0.490 15 | 3928.7 | 8.9780 | | 700 | 1870.1 | 0.534 74 | 3928.5 | 8.9377 | | 700 | 1726.1 | 0.579 34 | 3928.4 | 8.9007 | |
| 2082.2 | 0.480 25 | 3974.3 | 9.0244 | | 720 | 1908.6 | 0.523 94 | 3974.2 | 8.9841 | | 720 | 1761.7 | 0.567 63 | 3974.1 | 8.9471 | |
| 2124.3 | 0.470 75 | 4020.2 | 9.0702 | | 740 | 1947.2 | 0.513 57 | 4020.1 | 9.0299 | | 740 | 1797.3 | 0.556 39 | 4020.0 | 8.9929 | |
| 2166.3 | 0.461 61 | 4066.4 | 9.1153 | | 760 | 1985.7 | 0.503 60 | 4066.3 | 9.0751 | | 760 | 1832.9 | 0.545 59 | 4066.2 | 9.0381 | |
| 2208.3 | 0.452 83 | 4112.9 | 9.1599 | | 780 | 2024.2 | 0.494 01 | 4112.8 | 9.1196 | | 780 | 1868.4 | 0.535 20 | 4112.7 | 9.0826 | |
| 2250.4 | 0.444 37 | 4159.7 | 9.2039 | | 800 | 2062.8 | 0.484 79 | 4159.6 | 9.1636 | | 800 | 1904.0 | 0.525 20 | 4159.5 | 9.1266 | |
| 2292.4 | 0.436 23 | 4206.7 | 9.2473 | | 820 | 2101.3 | 0.475 90 | 4206.6 | 9.2071 | | 820 | 1939.6 | 0.515 57 | 4206.5 | 9.1700 | |
| 2334.4 | 0.428 37 | 4254.0 | 9.2902 | | 840 | 2139.8 | 0.467 33 | 4253.9 | 9.2499 | | 840 | 1975.2 | 0.506 29 | 4253.8 | 9.2129 | |
| 2376.4 | 0.420 80 | 4301.6 | 9.3325 | | 860 | 2178.3 | 0.459 07 | 4301.5 | 9.2923 | | 860 | 2010.7 | 0.497 34 | 4301.4 | 9.2553 | |
| 2418.4 | 0.413 49 | 4349.4 | 9.3744 | | 880 | 2216.8 | 0.451 09 | 4349.4 | 9.3342 | | 880 | 2046.3 | 0.488 69 | 4349.3 | 9.2972 | |
| 2460.4 | 0.406 43 | 4397.6 | 9.4158 | | 900 | 2255.4 | 0.443 39 | 4397.5 | 9.3756 | | 900 | 2081.8 | 0.480 35 | 4397.4 | 9.3386 | |
| 2502.5 | 0.399 61 | 4446.0 | 9.4567 | | 920 | 2293.9 | 0.435 94 | 4445.9 | 9.4165 | | 920 | 2117.4 | 0.472 28 | 4445.8 | 9.3795 | |
| 2544.5 | 0.393 01 | 4494.6 | 9.4971 | | 940 | 2332.4 | 0.428 75 | 4494.6 | 9.4569 | | 940 | 2152.9 | 0.464 48 | 4494.5 | 9.4199 | |
| 2586.5 | 0.386 63 | 4543.6 | 9.5371 | | 960 | 2370.9 | 0.421 78 | 4543.5 | 9.4969 | | 960 | 2188.5 | 0.456 94 | 4543.4 | 9.4599 | |
| 2628.5 | 0.380 45 | 4592.8 | 9.5767 | | 980 | 2409.4 | 0.415 04 | 4592.7 | 9.5365 | | 980 | 2224.0 | 0.449 64 | 4592.6 | 9.4995 | |
| 2670.5 | 0.374 47 | 4642.2 | 9.6159 | | 1000 | 2447.9 | 0.408 52 | 4642.2 | 9.5757 | | 1000 | 2259.6 | 0.442 56 | 4642.1 | 9.5387 | |
| 2880.4 | 0.347 17 | 4893.3 | 9.8056 | | 1100 | 2640.4 | 0.378 74 | 4893.2 | 9.7655 | | 1100 | 2437.2 | 0.410 30 | 4893.2 | 9.7285 | |
| 3090.3 | 0.323 59 | 5150.3 | 9.9863 | | 1200 | 2832.8 | 0.353 01 | 5150.3 | 9.9462 | | 1200 | 2614.9 | 0.382 43 | 5150.3 | 9.9092 | |
| 3300.2 | 0.303 01 | 5413.1 | 10.159 | | 1300 | 3025.2 | 0.330 56 | 5413.0 | 10.119 | | 1300 | 2792.5 | 0.358 10 | 5413.0 | 10.082 | |
| 3510.1 | 0.284 89 | 5681.0 | 10.324 | | 1400 | 3217.6 | 0.310 79 | 5681.0 | 10.284 | | 1400 | 2970.1 | 0.336 69 | 5681.0 | 10.247 | |
| 3720.0 | 0.268 82 | 5953.7 | 10.482 | | 1500 | 3410.0 | 0.293 26 | 5953.7 | 10.442 | | 1500 | 3147.7 | 0.317 69 | 5953.7 | 10.405 | |
| 3929.8 | 0.254 47 | 6230.9 | 10.634 | | 1600 | 3602.3 | 0.277 60 | 6230.9 | 10.594 | | 1600 | 3325.3 | 0.300 73 | 6230.9 | 10.557 | |
| 4349.5 | 0.229 91 | 6797.1 | 10.921 | | 1800 | 3987.0 | 0.250 81 | 6797.1 | 10.881 | | 1800 | 3680.4 | 0.271 71 | 6797.1 | 10.844 | |
| 4769.1 | 0.209 68 | 7376.9 | 11.188 | | 2000 | 4371.7 | 0.228 74 | 7376.9 | 11.148 | | 2000 | 4035.5 | 0.247 80 | 7376.9 | 11.111 | |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.28 MPa ($t_s = 131.185\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.30 MPa ($t_s = 133.522\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.35 MPa ($t_s = 138.857\text{ }^{\circ}\text{C}$) | | | |
|--|---------|--------|-----------|-----------------------|--|---------|--------|-----------|-----------------------|--|---------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.070 86 | 933.83 | 551.44 | 1.6471 | $t_s(\text{L})$ | 1.073 17 | 931.82 | 561.43 | 1.6717 | $t_s(\text{L})$ | 1.078 57 | 927.15 | 584.26 | 1.7274 |
| 646.24 | 1.5474 | 2721.7 | 7.0146 | $t_s(\text{V})$ | 605.76 | 1.6508 | 2724.9 | 6.9916 | $t_s(\text{V})$ | 524.18 | 1.9077 | 2732.0 | 6.9401 |
| 1.000 07 | 999.93 | 0.24 | -0.000 14 | 0 | 1.000 06 | 999.94 | 0.26 | -0.000 13 | 0 | 1.000 03 | 999.97 | 0.31 | -0.000 13 |
| 0.999 95 | 1000.05 | 21.30 | 0.076 25 | 5 | 0.999 94 | 1000.06 | 21.32 | 0.076 25 | 5 | 0.999 91 | 1000.09 | 21.37 | 0.076 25 |
| 1.000 21 | 999.79 | 42.29 | 0.151 06 | 10 | 1.000 20 | 999.80 | 42.31 | 0.151 06 | 10 | 1.000 18 | 999.82 | 42.36 | 0.151 06 |
| 1.000 81 | 999.19 | 63.25 | 0.224 42 | 15 | 1.000 81 | 999.20 | 63.27 | 0.224 42 | 15 | 1.000 78 | 999.22 | 63.31 | 0.224 41 |
| 1.001 71 | 998.29 | 84.18 | 0.296 43 | 20 | 1.001 70 | 998.30 | 84.19 | 0.296 42 | 20 | 1.001 68 | 998.32 | 84.24 | 0.296 41 |
| 1.002 88 | 997.13 | 105.09 | 0.367 15 | 25 | 1.002 87 | 997.14 | 105.10 | 0.367 15 | 25 | 1.002 85 | 997.16 | 105.15 | 0.367 14 |
| 1.004 29 | 995.73 | 125.99 | 0.436 67 | 30 | 1.004 28 | 995.74 | 126.00 | 0.436 66 | 30 | 1.004 26 | 995.76 | 126.05 | 0.436 65 |
| 1.005 92 | 994.11 | 146.88 | 0.505 03 | 35 | 1.005 91 | 994.12 | 146.90 | 0.505 03 | 35 | 1.005 89 | 994.14 | 146.94 | 0.505 01 |
| 1.007 77 | 992.29 | 167.77 | 0.572 30 | 40 | 1.007 76 | 992.30 | 167.79 | 0.572 29 | 40 | 1.007 73 | 992.33 | 167.84 | 0.572 27 |
| 1.009 80 | 990.29 | 188.67 | 0.638 50 | 45 | 1.009 80 | 990.30 | 188.69 | 0.638 49 | 45 | 1.009 77 | 990.32 | 188.73 | 0.638 47 |
| 1.012 03 | 988.11 | 209.57 | 0.703 68 | 50 | 1.012 02 | 988.12 | 209.59 | 0.703 68 | 50 | 1.012 00 | 988.14 | 209.63 | 0.703 65 |
| 1.014 43 | 985.77 | 230.48 | 0.767 89 | 55 | 1.014 43 | 985.78 | 230.50 | 0.767 88 | 55 | 1.014 40 | 985.80 | 230.54 | 0.767 86 |
| 1.017 01 | 983.27 | 251.40 | 0.831 15 | 60 | 1.017 00 | 983.28 | 251.42 | 0.831 14 | 60 | 1.016 98 | 983.30 | 251.46 | 0.831 12 |
| 1.019 75 | 980.63 | 272.33 | 0.893 51 | 65 | 1.019 74 | 980.64 | 272.34 | 0.893 50 | 65 | 1.019 72 | 980.66 | 272.39 | 0.893 47 |
| 1.022 66 | 977.84 | 293.27 | 0.954 98 | 70 | 1.022 65 | 977.85 | 293.29 | 0.954 97 | 70 | 1.022 63 | 977.87 | 293.33 | 0.954 94 |
| 1.025 72 | 974.92 | 314.22 | 1.0156 | 75 | 1.025 71 | 974.93 | 314.24 | 1.0156 | 75 | 1.025 69 | 974.95 | 314.28 | 1.0156 |
| 1.028 94 | 971.87 | 335.20 | 1.0754 | 80 | 1.028 93 | 971.88 | 335.21 | 1.0754 | 80 | 1.028 91 | 971.90 | 335.25 | 1.0754 |
| 1.032 32 | 968.69 | 356.19 | 1.1344 | 85 | 1.032 31 | 968.70 | 356.20 | 1.1344 | 85 | 1.032 29 | 968.72 | 356.24 | 1.1344 |
| 1.035 85 | 965.39 | 377.20 | 1.1927 | 90 | 1.035 84 | 965.40 | 377.22 | 1.1927 | 90 | 1.035 81 | 965.42 | 377.26 | 1.1927 |
| 1.039 53 | 961.97 | 398.24 | 1.2502 | 95 | 1.039 52 | 961.98 | 398.25 | 1.2502 | 95 | 1.039 50 | 962.00 | 398.29 | 1.2502 |
| 1.043 37 | 958.43 | 419.30 | 1.3071 | 100 | 1.043 36 | 958.44 | 419.32 | 1.3071 | 100 | 1.043 33 | 958.47 | 419.35 | 1.3070 |
| 1.047 36 | 954.78 | 440.39 | 1.3632 | 105 | 1.047 35 | 954.79 | 440.41 | 1.3632 | 105 | 1.047 32 | 954.81 | 440.44 | 1.3632 |
| 1.051 51 | 951.01 | 461.51 | 1.4187 | 110 | 1.051 50 | 951.02 | 461.53 | 1.4187 | 110 | 1.051 47 | 951.05 | 461.57 | 1.4187 |
| 1.055 81 | 947.14 | 482.67 | 1.4736 | 115 | 1.055 80 | 947.15 | 482.69 | 1.4736 | 115 | 1.055 78 | 947.17 | 482.72 | 1.4735 |
| 1.060 28 | 943.15 | 503.87 | 1.5278 | 120 | 1.060 27 | 943.16 | 503.88 | 1.5278 | 120 | 1.060 24 | 943.18 | 503.92 | 1.5278 |
| 1.064 91 | 939.05 | 525.11 | 1.5815 | 125 | 1.064 90 | 939.06 | 525.12 | 1.5815 | 125 | 1.064 87 | 939.08 | 525.16 | 1.5814 |
| 1.069 70 | 934.84 | 546.39 | 1.6346 | 130 | 1.069 69 | 934.85 | 546.40 | 1.6346 | 130 | 1.069 66 | 934.88 | 546.44 | 1.6346 |
| 653.30 | 1.5307 | 2730.2 | 7.0356 | 135 | 608.33 | 1.6438 | 2728.2 | 6.9998 | 135 | 1.074 63 | 930.56 | 567.77 | 1.6872 |
| 662.47 | 1.5095 | 2741.2 | 7.0624 | 140 | 616.97 | 1.6208 | 2739.4 | 7.0269 | 140 | 525.91 | 1.9015 | 2734.6 | 6.9465 |
| 671.56 | 1.4891 | 2752.1 | 7.0885 | 145 | 625.53 | 1.5986 | 2750.3 | 7.0533 | 145 | 533.41 | 1.8747 | 2745.9 | 6.9738 |
| 680.59 | 1.4693 | 2762.8 | 7.1140 | 150 | 634.01 | 1.5773 | 2761.2 | 7.0791 | 150 | 540.83 | 1.8490 | 2757.1 | 7.0003 |
| 689.55 | 1.4502 | 2773.5 | 7.1390 | 155 | 642.44 | 1.5566 | 2771.9 | 7.1044 | 155 | 548.18 | 1.8242 | 2768.1 | 7.0261 |
| 698.46 | 1.4317 | 2784.0 | 7.1636 | 160 | 650.81 | 1.5365 | 2782.6 | 7.1291 | 160 | 555.47 | 1.8003 | 2778.9 | 7.0514 |
| 707.33 | 1.4138 | 2794.5 | 7.1877 | 165 | 659.13 | 1.5171 | 2793.2 | 7.1534 | 165 | 562.72 | 1.7771 | 2789.7 | 7.0761 |
| 716.16 | 1.3963 | 2805.0 | 7.2114 | 170 | 667.42 | 1.4983 | 2803.7 | 7.1773 | 170 | 569.91 | 1.7547 | 2800.4 | 7.1004 |
| 724.94 | 1.3794 | 2815.4 | 7.2348 | 175 | 675.66 | 1.4800 | 2814.2 | 7.2008 | 175 | 577.07 | 1.7329 | 2811.1 | 7.1243 |
| 733.70 | 1.3630 | 2825.8 | 7.2578 | 180 | 683.87 | 1.4623 | 2824.6 | 7.2239 | 180 | 584.19 | 1.7118 | 2821.6 | 7.1477 |
| 742.42 | 1.3469 | 2836.1 | 7.2804 | 185 | 692.05 | 1.4450 | 2835.0 | 7.2467 | 185 | 591.28 | 1.6912 | 2832.1 | 7.1708 |
| 751.12 | 1.3313 | 2846.4 | 7.3028 | 190 | 700.20 | 1.4282 | 2845.3 | 7.2691 | 190 | 598.34 | 1.6713 | 2842.6 | 7.1935 |
| 759.79 | 1.3161 | 2856.6 | 7.3248 | 195 | 708.32 | 1.4118 | 2855.6 | 7.2913 | 195 | 605.37 | 1.6519 | 2853.0 | 7.2159 |
| 768.44 | 1.3013 | 2866.9 | 7.3465 | 200 | 716.42 | 1.3958 | 2865.9 | 7.3131 | 200 | 612.38 | 1.6330 | 2863.4 | 7.2380 |
| 785.67 | 1.2728 | 2887.3 | 7.3893 | 210 | 732.56 | 1.3651 | 2886.4 | 7.3560 | 210 | 626.33 | 1.5966 | 2884.1 | 7.2813 |
| 802.82 | 1.2456 | 2907.6 | 7.4310 | 220 | 748.62 | 1.3358 | 2906.8 | 7.3978 | 220 | 640.20 | 1.5620 | 2904.7 | 7.3235 |
| 819.92 | 1.2196 | 2928.0 | 7.4717 | 230 | 764.61 | 1.3078 | 2927.2 | 7.4387 | 230 | 654.00 | 1.5290 | 2925.2 | 7.3647 |
| 836.95 | 1.1948 | 2948.3 | 7.5117 | 240 | 780.55 | 1.2811 | 2947.5 | 7.4788 | 240 | 667.75 | 1.4976 | 2945.7 | 7.4050 |
| 853.94 | 1.1710 | 2968.5 | 7.5508 | 250 | 796.44 | 1.2556 | 2967.9 | 7.5180 | 250 | 681.45 | 1.4675 | 2966.2 | 7.4444 |
| 870.88 | 1.1483 | 2988.8 | 7.5892 | 260 | 812.29 | 1.2311 | 2988.2 | 7.5565 | 260 | 695.10 | 1.4386 | 2986.6 | 7.4831 |
| 887.79 | 1.1264 | 3009.1 | 7.6269 | 270 | 828.10 | 1.2076 | 3008.5 | 7.5943 | 270 | 708.72 | 1.4110 | 3007.0 | 7.5211 |
| 904.67 | 1.1054 | 3029.4 | 7.6640 | 280 | 843.88 | 1.1850 | 3028.8 | 7.6314 | 280 | 722.30 | 1.3845 | 3027.4 | 7.5583 |
| 921.51 | 1.0852 | 3049.7 | 7.7004 | 290 | 859.62 | 1.1633 | 3049.2 | 7.6678 | 290 | 735.85 | 1.3590 | 3047.9 | 7.5949 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.28 MPa ($t_s = 131.185\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.30 MPa ($t_s = 133.522\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.35 MPa ($t_s = 138.857\text{ }^{\circ}\text{C}$) | | | |
|--|----------|--------|--------|-----------------------|--|----------|--------|--------|-----------------------|--|----------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 938.33 | 1.0657 | 3070.1 | 7.7362 | 300 | 875.34 | 1.1424 | 3069.6 | 7.7037 | 300 | 749.37 | 1.3344 | 3068.3 | 7.6309 |
| 955.12 | 1.0470 | 3090.5 | 7.7714 | 310 | 891.04 | 1.1223 | 3090.0 | 7.7390 | 310 | 762.87 | 1.3108 | 3088.8 | 7.6664 |
| 971.90 | 1.0289 | 3110.9 | 7.8062 | 320 | 906.72 | 1.1029 | 3110.4 | 7.7738 | 320 | 776.35 | 1.2881 | 3109.3 | 7.7012 |
| 988.65 | 1.0115 | 3131.3 | 7.8404 | 330 | 922.37 | 1.0842 | 3130.9 | 7.8080 | 330 | 789.81 | 1.2661 | 3129.8 | 7.7355 |
| 1005.4 | 0.994 64 | 3151.8 | 7.8741 | 340 | 938.01 | 1.0661 | 3151.4 | 7.8417 | 340 | 803.25 | 1.2449 | 3150.4 | 7.7693 |
| 1022.1 | 0.978 37 | 3172.4 | 7.9073 | 350 | 953.63 | 1.0486 | 3172.0 | 7.8750 | 350 | 816.68 | 1.2245 | 3171.0 | 7.8027 |
| 1038.8 | 0.962 64 | 3192.9 | 7.9400 | 360 | 969.24 | 1.0317 | 3192.6 | 7.9078 | 360 | 830.09 | 1.2047 | 3191.6 | 7.8355 |
| 1055.5 | 0.947 41 | 3213.6 | 7.9724 | 370 | 984.83 | 1.0154 | 3213.2 | 7.9401 | 370 | 843.48 | 1.1856 | 3212.3 | 7.8680 |
| 1072.2 | 0.932 67 | 3234.3 | 8.0043 | 380 | 1000.4 | 0.999 59 | 3233.9 | 7.9721 | 380 | 856.87 | 1.1670 | 3233.1 | 7.9000 |
| 1088.9 | 0.918 40 | 3255.0 | 8.0358 | 390 | 1016.0 | 0.984 27 | 3254.7 | 8.0036 | 390 | 870.24 | 1.1491 | 3253.9 | 7.9315 |
| 1105.5 | 0.904 56 | 3275.8 | 8.0669 | 400 | 1031.5 | 0.969 42 | 3275.5 | 8.0347 | 400 | 883.60 | 1.1317 | 3274.7 | 7.9627 |
| 1122.2 | 0.891 14 | 3296.6 | 8.0976 | 410 | 1047.1 | 0.955 03 | 3296.3 | 8.0655 | 410 | 896.95 | 1.1149 | 3295.6 | 7.9935 |
| 1138.8 | 0.878 12 | 3317.5 | 8.1280 | 420 | 1062.6 | 0.941 06 | 3317.2 | 8.0959 | 420 | 910.30 | 1.0985 | 3316.5 | 8.0239 |
| 1155.4 | 0.865 48 | 3338.5 | 8.1580 | 430 | 1078.2 | 0.927 50 | 3338.2 | 8.1259 | 430 | 923.63 | 1.0827 | 3337.5 | 8.0540 |
| 1172.1 | 0.853 20 | 3359.5 | 8.1877 | 440 | 1093.7 | 0.914 33 | 3359.2 | 8.1556 | 440 | 936.96 | 1.0673 | 3358.6 | 8.0837 |
| 1188.7 | 0.841 27 | 3380.5 | 8.2170 | 450 | 1109.2 | 0.901 54 | 3380.3 | 8.1849 | 450 | 950.28 | 1.0523 | 3379.7 | 8.1131 |
| 1205.3 | 0.829 68 | 3401.7 | 8.2460 | 460 | 1124.7 | 0.889 11 | 3401.4 | 8.2140 | 460 | 963.60 | 1.0378 | 3400.8 | 8.1422 |
| 1221.9 | 0.818 40 | 3422.9 | 8.2748 | 470 | 1140.2 | 0.877 02 | 3422.6 | 8.2427 | 470 | 976.90 | 1.0236 | 3422.0 | 8.1709 |
| 1238.5 | 0.807 44 | 3444.1 | 8.3032 | 480 | 1155.7 | 0.865 26 | 3443.9 | 8.2711 | 480 | 990.21 | 1.0099 | 3443.3 | 8.1994 |
| 1255.1 | 0.796 76 | 3465.4 | 8.3313 | 490 | 1171.2 | 0.853 81 | 3465.2 | 8.2992 | 490 | 1003.5 | 0.996 51 | 3464.7 | 8.2275 |
| 1271.7 | 0.786 37 | 3486.8 | 8.3591 | 500 | 1186.7 | 0.842 66 | 3486.6 | 8.3271 | 500 | 1016.8 | 0.983 48 | 3486.1 | 8.2554 |
| 1304.8 | 0.766 38 | 3529.8 | 8.4140 | 520 | 1217.7 | 0.821 24 | 3529.6 | 8.3819 | 520 | 1043.4 | 0.958 44 | 3529.1 | 8.3103 |
| 1338.0 | 0.747 40 | 3573.0 | 8.4677 | 540 | 1248.6 | 0.800 88 | 3572.8 | 8.4357 | 540 | 1069.9 | 0.934 65 | 3572.3 | 8.3642 |
| 1371.1 | 0.729 34 | 3616.4 | 8.5206 | 560 | 1279.6 | 0.781 52 | 3616.3 | 8.4886 | 560 | 1096.5 | 0.912 03 | 3615.8 | 8.4170 |
| 1404.2 | 0.712 14 | 3660.2 | 8.5724 | 580 | 1310.5 | 0.763 08 | 3660.0 | 8.5404 | 580 | 1123.0 | 0.890 49 | 3659.6 | 8.4689 |
| 1437.3 | 0.695 73 | 3704.2 | 8.6234 | 600 | 1341.4 | 0.745 50 | 3704.0 | 8.5914 | 600 | 1149.5 | 0.869 95 | 3703.6 | 8.5200 |
| 1470.4 | 0.680 07 | 3748.5 | 8.6736 | 620 | 1372.3 | 0.728 71 | 3748.3 | 8.6416 | 620 | 1176.0 | 0.850 34 | 3747.9 | 8.5701 |
| 1503.5 | 0.665 11 | 3793.0 | 8.7229 | 640 | 1403.2 | 0.712 67 | 3792.9 | 8.6909 | 640 | 1202.5 | 0.831 61 | 3792.5 | 8.6195 |
| 1536.6 | 0.650 79 | 3837.8 | 8.7714 | 660 | 1434.1 | 0.697 32 | 3837.7 | 8.7395 | 660 | 1229.0 | 0.813 69 | 3837.4 | 8.6681 |
| 1569.7 | 0.637 08 | 3882.9 | 8.8193 | 680 | 1464.9 | 0.682 63 | 3882.8 | 8.7873 | 680 | 1255.5 | 0.796 53 | 3882.5 | 8.7159 |
| 1602.7 | 0.623 94 | 3928.3 | 8.8664 | 700 | 1495.8 | 0.668 54 | 3928.2 | 8.8344 | 700 | 1281.9 | 0.780 08 | 3927.9 | 8.7631 |
| 1635.8 | 0.611 33 | 3974.0 | 8.9128 | 720 | 1526.6 | 0.655 03 | 3973.9 | 8.8809 | 720 | 1308.4 | 0.764 30 | 3973.6 | 8.8095 |
| 1668.8 | 0.599 22 | 4019.9 | 8.9586 | 740 | 1557.5 | 0.642 05 | 4019.8 | 8.9267 | 740 | 1334.8 | 0.749 15 | 4019.5 | 8.8553 |
| 1701.9 | 0.587 59 | 4066.1 | 9.0038 | 760 | 1588.4 | 0.629 58 | 4066.0 | 8.9719 | 760 | 1361.3 | 0.734 59 | 4065.8 | 8.9005 |
| 1734.9 | 0.576 40 | 4112.6 | 9.0484 | 780 | 1619.2 | 0.617 59 | 4112.5 | 9.0164 | 780 | 1387.7 | 0.720 59 | 4112.3 | 8.9451 |
| 1768.0 | 0.565 63 | 4159.4 | 9.0923 | 800 | 1650.0 | 0.606 05 | 4159.3 | 9.0604 | 800 | 1414.2 | 0.707 12 | 4159.1 | 8.9891 |
| 1801.0 | 0.555 25 | 4206.4 | 9.1358 | 820 | 1680.9 | 0.594 93 | 4206.3 | 9.1039 | 820 | 1440.6 | 0.694 14 | 4206.1 | 9.0326 |
| 1834.0 | 0.545 25 | 4253.8 | 9.1787 | 840 | 1711.7 | 0.584 22 | 4253.7 | 9.1468 | 840 | 1467.1 | 0.681 64 | 4253.5 | 9.0755 |
| 1867.0 | 0.535 61 | 4301.3 | 9.2211 | 860 | 1742.5 | 0.573 88 | 4301.3 | 9.1892 | 860 | 1493.5 | 0.669 57 | 4301.1 | 9.1179 |
| 1900.1 | 0.526 30 | 4349.2 | 9.2629 | 880 | 1773.3 | 0.563 91 | 4349.1 | 9.2310 | 880 | 1519.9 | 0.657 93 | 4349.0 | 9.1598 |
| 1933.1 | 0.517 31 | 4397.4 | 9.3043 | 900 | 1804.2 | 0.554 27 | 4397.3 | 9.2724 | 900 | 1546.3 | 0.646 69 | 4397.1 | 9.2012 |
| 1966.1 | 0.508 62 | 4445.8 | 9.3452 | 920 | 1835.0 | 0.544 96 | 4445.7 | 9.3133 | 920 | 1572.8 | 0.635 82 | 4445.5 | 9.2421 |
| 1999.1 | 0.500 22 | 4494.4 | 9.3857 | 940 | 1865.8 | 0.535 96 | 4494.4 | 9.3538 | 940 | 1599.2 | 0.625 32 | 4494.2 | 9.2825 |
| 2032.1 | 0.492 10 | 4543.4 | 9.4257 | 960 | 1896.6 | 0.527 26 | 4543.3 | 9.3938 | 960 | 1625.6 | 0.615 16 | 4543.2 | 9.3226 |
| 2065.1 | 0.484 23 | 4592.6 | 9.4653 | 980 | 1927.4 | 0.518 83 | 4592.5 | 9.4334 | 980 | 1652.0 | 0.605 32 | 4592.4 | 9.3621 |
| 2098.1 | 0.476 61 | 4642.0 | 9.5044 | 1000 | 1958.2 | 0.510 66 | 4642.0 | 9.4726 | 1000 | 1678.4 | 0.595 79 | 4641.8 | 9.4013 |
| 2263.1 | 0.441 86 | 4893.1 | 9.6943 | 1100 | 2112.2 | 0.473 43 | 4893.1 | 9.6624 | 1100 | 1810.5 | 0.552 34 | 4893.0 | 9.5912 |
| 2428.1 | 0.411 84 | 5150.2 | 9.8750 | 1200 | 2266.2 | 0.441 26 | 5150.2 | 9.8431 | 1200 | 1942.5 | 0.514 81 | 5150.1 | 9.7719 |
| 2593.0 | 0.385 65 | 5413.0 | 10.048 | 1300 | 2420.2 | 0.413 19 | 5412.9 | 10.016 | 1300 | 2074.5 | 0.482 06 | 5412.9 | 9.9445 |
| 2758.0 | 0.362 59 | 5680.9 | 10.213 | 1400 | 2574.1 | 0.388 48 | 5680.9 | 10.181 | 1400 | 2206.4 | 0.453 23 | 5680.8 | 10.110 |
| 2922.9 | 0.342 13 | 5953.7 | 10.371 | 1500 | 2728.0 | 0.366 56 | 5953.7 | 10.339 | 1500 | 2338.3 | 0.427 65 | 5953.6 | 10.268 |
| 3087.8 | 0.323 86 | 6230.9 | 10.523 | 1600 | 2881.9 | 0.346 99 | 6230.9 | 10.491 | 1600 | 2470.3 | 0.404 81 | 6230.8 | 10.420 |
| 3417.5 | 0.292 61 | 6797.1 | 10.810 | 1800 | 3189.7 | 0.313 51 | 6797.1 | 10.778 | 1800 | 2734.1 | 0.365 75 | 6797.0 | 10.707 |
| 3747.2 | 0.266 86 | 7376.9 | 11.077 | 2000 | 3497.5 | 0.285 92 | 7376.9 | 11.045 | 2000 | 2997.9 | 0.333 57 | 7376.9 | 10.974 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.40 MPa ($t_s = 143.608\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.45 MPa ($t_s = 147.903\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.50 MPa ($t_s = 151.831\text{ }^{\circ}\text{C}$) | | | |
|--|---------|--------|-----------|-----------------------|--|---------|--------|-----------|-----------------------|--|---------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.083 55 | 922.89 | 604.65 | 1.7765 | $t_s(\text{L})$ | 1.088 19 | 918.96 | 623.14 | 1.8205 | $t_s(\text{L})$ | 1.092 55 | 915.29 | 640.09 | 1.8604 |
| 462.38 | 2.1627 | 2738.1 | 6.8955 | $t_s(\text{V})$ | 413.90 | 2.4161 | 2743.4 | 6.8560 | $t_s(\text{V})$ | 374.81 | 2.6680 | 2748.1 | 6.8207 |
| 1.000 01 | 999.99 | 0.37 | -0.000 13 | 0 | 0.999 98 | 1000.02 | 0.42 | -0.000 12 | 0 | 0.999 95 | 1000.05 | 0.47 | -0.000 12 |
| 0.999 89 | 1000.11 | 21.42 | 0.076 25 | 5 | 0.999 86 | 1000.14 | 21.47 | 0.076 25 | 5 | 0.999 84 | 1000.16 | 21.52 | 0.076 25 |
| 1.000 15 | 999.85 | 42.41 | 0.151 05 | 10 | 1.000 13 | 999.87 | 42.46 | 0.151 05 | 10 | 1.000 11 | 999.89 | 42.51 | 0.151 04 |
| 1.000 76 | 999.24 | 63.36 | 0.224 40 | 15 | 1.000 74 | 999.27 | 63.41 | 0.224 40 | 15 | 1.000 71 | 999.29 | 63.46 | 0.224 39 |
| 1.001 66 | 998.34 | 84.29 | 0.296 40 | 20 | 1.001 64 | 998.37 | 84.34 | 0.296 39 | 20 | 1.001 61 | 998.39 | 84.38 | 0.296 38 |
| 1.002 83 | 997.18 | 105.20 | 0.367 12 | 25 | 1.002 80 | 997.20 | 105.24 | 0.367 11 | 25 | 1.002 78 | 997.23 | 105.29 | 0.367 10 |
| 1.004 24 | 995.78 | 126.09 | 0.436 63 | 30 | 1.004 21 | 995.80 | 126.14 | 0.436 62 | 30 | 1.004 19 | 995.83 | 126.19 | 0.436 60 |
| 1.005 87 | 994.17 | 146.99 | 0.504 99 | 35 | 1.005 85 | 994.19 | 147.03 | 0.504 98 | 35 | 1.005 82 | 994.21 | 147.08 | 0.504 96 |
| 1.007 71 | 992.35 | 167.88 | 0.572 25 | 40 | 1.007 69 | 992.37 | 167.93 | 0.572 23 | 40 | 1.007 67 | 992.39 | 167.97 | 0.572 21 |
| 1.009 75 | 990.34 | 188.78 | 0.638 45 | 45 | 1.009 73 | 990.37 | 188.82 | 0.638 43 | 45 | 1.009 71 | 990.39 | 188.86 | 0.638 40 |
| 1.011 98 | 988.17 | 209.68 | 0.703 63 | 50 | 1.011 95 | 988.19 | 209.72 | 0.703 61 | 50 | 1.011 93 | 988.21 | 209.76 | 0.703 58 |
| 1.014 38 | 985.82 | 230.58 | 0.767 83 | 55 | 1.014 36 | 985.85 | 230.63 | 0.767 81 | 55 | 1.014 34 | 985.87 | 230.67 | 0.767 78 |
| 1.016 96 | 983.33 | 251.50 | 0.831 09 | 60 | 1.016 93 | 983.35 | 251.54 | 0.831 06 | 60 | 1.016 91 | 983.37 | 251.58 | 0.831 04 |
| 1.019 70 | 980.68 | 272.43 | 0.893 44 | 65 | 1.019 68 | 980.70 | 272.47 | 0.893 41 | 65 | 1.019 65 | 980.73 | 272.51 | 0.893 38 |
| 1.022 60 | 977.90 | 293.37 | 0.954 91 | 70 | 1.022 58 | 977.92 | 293.41 | 0.954 88 | 70 | 1.022 56 | 977.94 | 293.45 | 0.954 85 |
| 1.025 67 | 974.98 | 314.32 | 1.0155 | 75 | 1.025 64 | 975.00 | 314.36 | 1.0155 | 75 | 1.025 62 | 975.02 | 314.40 | 1.0155 |
| 1.028 89 | 971.92 | 335.29 | 1.0753 | 80 | 1.028 86 | 971.95 | 335.33 | 1.0753 | 80 | 1.028 84 | 971.97 | 335.37 | 1.0753 |
| 1.032 26 | 968.75 | 356.28 | 1.1344 | 85 | 1.032 24 | 968.77 | 356.32 | 1.1343 | 85 | 1.032 21 | 968.79 | 356.36 | 1.1343 |
| 1.035 79 | 965.45 | 377.29 | 1.1926 | 90 | 1.035 77 | 965.47 | 377.33 | 1.1926 | 90 | 1.035 74 | 965.49 | 377.37 | 1.1926 |
| 1.039 47 | 962.03 | 398.33 | 1.2502 | 95 | 1.039 45 | 962.05 | 398.37 | 1.2501 | 95 | 1.039 42 | 962.07 | 398.41 | 1.2501 |
| 1.043 31 | 958.49 | 419.39 | 1.3070 | 100 | 1.043 28 | 958.51 | 419.43 | 1.3069 | 100 | 1.043 26 | 958.54 | 419.47 | 1.3069 |
| 1.047 30 | 954.84 | 440.48 | 1.3631 | 105 | 1.047 27 | 954.86 | 440.52 | 1.3631 | 105 | 1.047 25 | 954.88 | 440.55 | 1.3630 |
| 1.051 44 | 951.07 | 461.60 | 1.4186 | 110 | 1.051 42 | 951.10 | 461.64 | 1.4186 | 110 | 1.051 39 | 951.12 | 461.67 | 1.4185 |
| 1.055 75 | 947.20 | 482.76 | 1.4735 | 115 | 1.055 72 | 947.22 | 482.79 | 1.4734 | 115 | 1.055 69 | 947.24 | 482.83 | 1.4734 |
| 1.060 21 | 943.21 | 503.95 | 1.5277 | 120 | 1.060 18 | 943.23 | 503.99 | 1.5277 | 120 | 1.060 16 | 943.26 | 504.02 | 1.5276 |
| 1.064 84 | 939.11 | 525.19 | 1.5814 | 125 | 1.064 81 | 939.13 | 525.22 | 1.5814 | 125 | 1.064 78 | 939.16 | 525.26 | 1.5813 |
| 1.069 63 | 934.90 | 546.47 | 1.6345 | 130 | 1.069 60 | 934.93 | 546.51 | 1.6345 | 130 | 1.069 57 | 934.95 | 546.54 | 1.6344 |
| 1.074 59 | 930.58 | 567.80 | 1.6871 | 135 | 1.074 56 | 930.61 | 567.84 | 1.6871 | 135 | 1.074 53 | 930.64 | 567.87 | 1.6870 |
| 1.079 73 | 926.16 | 589.19 | 1.7392 | 140 | 1.079 70 | 926.18 | 589.22 | 1.7391 | 140 | 1.079 67 | 926.21 | 589.25 | 1.7391 |
| 464.25 | 2.1540 | 2741.3 | 6.9033 | 145 | 1.085 02 | 921.64 | 610.66 | 1.7907 | 145 | 1.084 99 | 921.67 | 610.69 | 1.7907 |
| 470.88 | 2.1237 | 2752.8 | 6.9306 | 150 | 416.42 | 2.4014 | 2748.3 | 6.8678 | 150 | 1.090 49 | 917.02 | 632.19 | 1.8418 |
| 477.44 | 2.0945 | 2764.1 | 6.9571 | 155 | 422.37 | 2.3676 | 2759.9 | 6.8950 | 155 | 378.27 | 2.6436 | 2755.7 | 6.8384 |
| 483.93 | 2.0664 | 2775.2 | 6.9829 | 160 | 428.25 | 2.3351 | 2771.3 | 6.9215 | 160 | 383.66 | 2.6064 | 2767.4 | 6.8656 |
| 490.37 | 2.0393 | 2786.2 | 7.0081 | 165 | 434.06 | 2.3038 | 2782.6 | 6.9473 | 165 | 388.99 | 2.5708 | 2778.9 | 6.8919 |
| 496.76 | 2.0131 | 2797.1 | 7.0329 | 170 | 439.83 | 2.2736 | 2793.7 | 6.9725 | 170 | 394.26 | 2.5364 | 2790.2 | 6.9176 |
| 503.10 | 1.9877 | 2807.9 | 7.0571 | 175 | 445.55 | 2.2444 | 2804.7 | 6.9971 | 175 | 399.48 | 2.5033 | 2801.4 | 6.9427 |
| 509.41 | 1.9631 | 2818.6 | 7.0809 | 180 | 451.23 | 2.2162 | 2815.5 | 7.0213 | 180 | 404.66 | 2.4712 | 2812.4 | 6.9673 |
| 515.69 | 1.9392 | 2829.3 | 7.1043 | 185 | 456.87 | 2.1888 | 2826.4 | 7.0450 | 185 | 409.80 | 2.4402 | 2823.4 | 6.9913 |
| 521.93 | 1.9160 | 2839.9 | 7.1273 | 190 | 462.48 | 2.1623 | 2837.1 | 7.0683 | 190 | 414.91 | 2.4102 | 2834.3 | 7.0150 |
| 528.14 | 1.8934 | 2850.4 | 7.1500 | 195 | 468.06 | 2.1365 | 2847.8 | 7.0913 | 195 | 419.98 | 2.3811 | 2845.1 | 7.0382 |
| 534.33 | 1.8715 | 2860.9 | 7.1723 | 200 | 473.62 | 2.1114 | 2858.4 | 7.1138 | 200 | 425.03 | 2.3528 | 2855.8 | 7.0610 |
| 546.65 | 1.8293 | 2881.8 | 7.2160 | 210 | 484.66 | 2.0633 | 2879.5 | 7.1580 | 210 | 435.06 | 2.2986 | 2877.2 | 7.1056 |
| 558.88 | 1.7893 | 2902.6 | 7.2586 | 220 | 495.61 | 2.0177 | 2900.5 | 7.2009 | 220 | 445.00 | 2.2472 | 2898.3 | 7.1489 |
| 571.04 | 1.7512 | 2923.3 | 7.3001 | 230 | 506.50 | 1.9743 | 2921.3 | 7.2428 | 230 | 454.87 | 2.1984 | 2919.3 | 7.1911 |
| 583.14 | 1.7148 | 2943.9 | 7.3407 | 240 | 517.33 | 1.9330 | 2942.1 | 7.2836 | 240 | 464.67 | 2.1520 | 2940.2 | 7.2322 |
| 595.20 | 1.6801 | 2964.5 | 7.3804 | 250 | 528.11 | 1.8936 | 2962.8 | 7.3235 | 250 | 474.43 | 2.1078 | 2961.0 | 7.2724 |
| 607.20 | 1.6469 | 2985.0 | 7.4193 | 260 | 538.84 | 1.8559 | 2983.4 | 7.3626 | 260 | 484.14 | 2.0655 | 2981.8 | 7.3117 |
| 619.17 | 1.6151 | 3005.5 | 7.4574 | 270 | 549.53 | 1.8197 | 3004.0 | 7.4010 | 270 | 493.80 | 2.0251 | 3002.5 | 7.3502 |
| 631.11 | 1.5845 | 3026.0 | 7.4948 | 280 | 560.18 | 1.7851 | 3024.6 | 7.4385 | 280 | 503.44 | 1.9863 | 3023.2 | 7.3880 |
| 643.01 | 1.5552 | 3046.6 | 7.5316 | 290 | 570.81 | 1.7519 | 3045.2 | 7.4754 | 290 | 513.04 | 1.9492 | 3043.9 | 7.4250 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.40 MPa ($t_s = 143.608\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.45 MPa ($t_s = 147.903\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.50 MPa ($t_s = 151.831\text{ }^{\circ}\text{C}$) | | | |
|--|----------|--------|--------|-----------------------|--|----------|--------|--------|-----------------------|--|----------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 654.89 | 1.5270 | 3067.1 | 7.5677 | 300 | 581.40 | 1.7200 | 3065.8 | 7.5117 | 300 | 522.61 | 1.9135 | 3064.6 | 7.4614 |
| 666.74 | 1.4998 | 3087.6 | 7.6032 | 310 | 591.98 | 1.6893 | 3086.4 | 7.5473 | 310 | 532.16 | 1.8791 | 3085.2 | 7.4972 |
| 678.58 | 1.4737 | 3108.2 | 7.6382 | 320 | 602.53 | 1.6597 | 3107.0 | 7.5824 | 320 | 541.69 | 1.8461 | 3105.9 | 7.5323 |
| 690.39 | 1.4485 | 3128.8 | 7.6726 | 330 | 613.06 | 1.6312 | 3127.7 | 7.6169 | 330 | 551.19 | 1.8143 | 3126.6 | 7.5669 |
| 702.18 | 1.4241 | 3149.4 | 7.7065 | 340 | 623.57 | 1.6037 | 3148.4 | 7.6509 | 340 | 560.68 | 1.7836 | 3147.3 | 7.6010 |
| 713.96 | 1.4006 | 3170.0 | 7.7399 | 350 | 634.07 | 1.5771 | 3169.1 | 7.6844 | 350 | 570.15 | 1.7539 | 3168.1 | 7.6346 |
| 725.72 | 1.3779 | 3190.7 | 7.7728 | 360 | 644.55 | 1.5515 | 3189.8 | 7.7174 | 360 | 579.61 | 1.7253 | 3188.9 | 7.6677 |
| 737.47 | 1.3560 | 3211.5 | 7.8053 | 370 | 655.01 | 1.5267 | 3210.6 | 7.7499 | 370 | 589.05 | 1.6977 | 3209.7 | 7.7003 |
| 749.21 | 1.3347 | 3232.2 | 7.8374 | 380 | 665.47 | 1.5027 | 3231.4 | 7.7820 | 380 | 598.48 | 1.6709 | 3230.5 | 7.7325 |
| 760.93 | 1.3142 | 3253.0 | 7.8690 | 390 | 675.91 | 1.4795 | 3252.2 | 7.8137 | 390 | 607.90 | 1.6450 | 3251.4 | 7.7642 |
| 772.64 | 1.2943 | 3273.9 | 7.9002 | 400 | 686.34 | 1.4570 | 3273.1 | 7.8450 | 400 | 617.30 | 1.6199 | 3272.3 | 7.7955 |
| 784.35 | 1.2749 | 3294.8 | 7.9311 | 410 | 696.77 | 1.4352 | 3294.1 | 7.8759 | 410 | 626.70 | 1.5957 | 3293.3 | 7.8265 |
| 796.05 | 1.2562 | 3315.8 | 7.9615 | 420 | 707.18 | 1.4141 | 3315.1 | 7.9064 | 420 | 636.09 | 1.5721 | 3314.4 | 7.8570 |
| 807.73 | 1.2380 | 3336.8 | 7.9917 | 430 | 717.59 | 1.3936 | 3336.1 | 7.9366 | 430 | 645.47 | 1.5493 | 3335.4 | 7.8872 |
| 819.41 | 1.2204 | 3357.9 | 8.0214 | 440 | 727.99 | 1.3737 | 3357.2 | 7.9664 | 440 | 654.84 | 1.5271 | 3356.6 | 7.9170 |
| 831.09 | 1.2032 | 3379.0 | 8.0508 | 450 | 738.38 | 1.3543 | 3378.4 | 7.9958 | 450 | 664.21 | 1.5056 | 3377.7 | 7.9465 |
| 842.75 | 1.1866 | 3400.2 | 8.0799 | 460 | 748.76 | 1.3355 | 3399.6 | 8.0250 | 460 | 673.57 | 1.4846 | 3399.0 | 7.9757 |
| 854.41 | 1.1704 | 3421.4 | 8.1087 | 470 | 759.14 | 1.3173 | 3420.9 | 8.0538 | 470 | 682.92 | 1.4643 | 3420.3 | 8.0045 |
| 866.07 | 1.1546 | 3442.8 | 8.1372 | 480 | 769.51 | 1.2995 | 3442.2 | 8.0823 | 480 | 692.27 | 1.4445 | 3441.6 | 8.0331 |
| 877.71 | 1.1393 | 3464.1 | 8.1654 | 490 | 779.88 | 1.2823 | 3463.6 | 8.1105 | 490 | 701.61 | 1.4253 | 3463.0 | 8.0613 |
| 889.36 | 1.1244 | 3485.5 | 8.1933 | 500 | 790.24 | 1.2654 | 3485.0 | 8.1384 | 500 | 710.94 | 1.4066 | 3484.5 | 8.0892 |
| 912.63 | 1.0957 | 3528.6 | 8.2482 | 520 | 810.95 | 1.2331 | 3528.1 | 8.1934 | 520 | 729.60 | 1.3706 | 3527.6 | 8.1443 |
| 935.89 | 1.0685 | 3571.9 | 8.3021 | 540 | 831.64 | 1.2024 | 3571.4 | 8.2473 | 540 | 748.24 | 1.3365 | 3570.9 | 8.1983 |
| 959.13 | 1.0426 | 3615.4 | 8.3550 | 560 | 852.32 | 1.1733 | 3614.9 | 8.3002 | 560 | 766.87 | 1.3040 | 3614.5 | 8.2512 |
| 982.36 | 1.0180 | 3659.2 | 8.4069 | 580 | 872.98 | 1.1455 | 3658.8 | 8.3522 | 580 | 785.48 | 1.2731 | 3658.4 | 8.3032 |
| 1005.6 | 0.994 46 | 3703.2 | 8.4580 | 600 | 893.64 | 1.1190 | 3702.9 | 8.4033 | 600 | 804.09 | 1.2436 | 3702.5 | 8.3543 |
| 1028.8 | 0.972 02 | 3747.6 | 8.5082 | 620 | 914.28 | 1.0938 | 3747.2 | 8.4535 | 620 | 822.68 | 1.2155 | 3746.8 | 8.4046 |
| 1052.0 | 0.950 59 | 3792.2 | 8.5576 | 640 | 934.91 | 1.0696 | 3791.8 | 8.5029 | 640 | 841.26 | 1.1887 | 3791.5 | 8.4540 |
| 1075.2 | 0.930 09 | 3837.0 | 8.6062 | 660 | 955.54 | 1.0465 | 3836.7 | 8.5515 | 660 | 859.83 | 1.1630 | 3836.4 | 8.5027 |
| 1098.3 | 0.910 46 | 3882.2 | 8.6540 | 680 | 976.15 | 1.0244 | 3881.9 | 8.5994 | 680 | 878.40 | 1.1384 | 3881.6 | 8.5506 |
| 1121.5 | 0.891 65 | 3927.6 | 8.7012 | 700 | 996.76 | 1.0032 | 3927.3 | 8.6466 | 700 | 896.96 | 1.1149 | 3927.0 | 8.5977 |
| 1144.7 | 0.873 60 | 3973.3 | 8.7477 | 720 | 1017.4 | 0.982 93 | 3973.0 | 8.6931 | 720 | 915.51 | 1.0923 | 3972.7 | 8.6443 |
| 1167.8 | 0.856 28 | 4019.3 | 8.7935 | 740 | 1038.0 | 0.963 43 | 4019.0 | 8.7389 | 740 | 934.05 | 1.0706 | 4018.7 | 8.6901 |
| 1191.0 | 0.839 63 | 4065.5 | 8.8387 | 760 | 1058.6 | 0.944 69 | 4065.3 | 8.7842 | 760 | 952.59 | 1.0498 | 4065.0 | 8.7353 |
| 1214.2 | 0.823 62 | 4112.0 | 8.8833 | 780 | 1079.1 | 0.926 66 | 4111.8 | 8.8288 | 780 | 971.13 | 1.0297 | 4111.6 | 8.7800 |
| 1237.3 | 0.808 21 | 4158.8 | 8.9273 | 800 | 1099.7 | 0.909 32 | 4158.6 | 8.8728 | 800 | 989.66 | 1.0104 | 4158.4 | 8.8240 |
| 1260.4 | 0.793 37 | 4205.9 | 8.9708 | 820 | 1120.3 | 0.892 62 | 4205.7 | 8.9163 | 820 | 1008.2 | 0.991 88 | 4205.5 | 8.8675 |
| 1283.6 | 0.779 07 | 4253.3 | 9.0137 | 840 | 1140.9 | 0.876 52 | 4253.0 | 8.9592 | 840 | 1026.7 | 0.973 98 | 4252.8 | 8.9104 |
| 1306.7 | 0.765 28 | 4300.9 | 9.0561 | 860 | 1161.4 | 0.861 00 | 4300.7 | 9.0016 | 860 | 1045.2 | 0.956 73 | 4300.5 | 8.9528 |
| 1329.8 | 0.751 97 | 4348.8 | 9.0980 | 880 | 1182.0 | 0.846 01 | 4348.6 | 9.0435 | 880 | 1063.7 | 0.940 07 | 4348.4 | 8.9947 |
| 1353.0 | 0.739 11 | 4396.9 | 9.1394 | 900 | 1202.6 | 0.831 55 | 4396.7 | 9.0849 | 900 | 1082.3 | 0.923 99 | 4396.6 | 9.0362 |
| 1376.1 | 0.726 69 | 4445.3 | 9.1803 | 920 | 1223.1 | 0.817 57 | 4445.2 | 9.1258 | 920 | 1100.8 | 0.908 45 | 4445.0 | 9.0771 |
| 1399.2 | 0.714 68 | 4494.0 | 9.2208 | 940 | 1243.7 | 0.804 05 | 4493.9 | 9.1663 | 940 | 1119.3 | 0.893 43 | 4493.7 | 9.1176 |
| 1422.3 | 0.703 06 | 4543.0 | 9.2608 | 960 | 1264.3 | 0.790 98 | 4542.8 | 9.2064 | 960 | 1137.8 | 0.878 90 | 4542.7 | 9.1576 |
| 1445.5 | 0.691 82 | 4592.2 | 9.3004 | 980 | 1284.8 | 0.778 32 | 4592.1 | 9.2460 | 980 | 1156.3 | 0.864 83 | 4591.9 | 9.1972 |
| 1468.6 | 0.680 93 | 4641.7 | 9.3396 | 1000 | 1305.4 | 0.766 07 | 4641.5 | 9.2851 | 1000 | 1174.8 | 0.851 21 | 4641.4 | 9.2364 |
| 1584.1 | 0.631 26 | 4892.8 | 9.5295 | 1100 | 1408.1 | 0.710 18 | 4892.7 | 9.4750 | 1100 | 1267.3 | 0.789 10 | 4892.6 | 9.4263 |
| 1699.7 | 0.588 35 | 5150.0 | 9.7102 | 1200 | 1510.8 | 0.661 90 | 5149.9 | 9.6558 | 1200 | 1359.7 | 0.735 45 | 5149.8 | 9.6071 |
| 1815.2 | 0.550 92 | 5412.8 | 9.8828 | 1300 | 1613.5 | 0.619 78 | 5412.7 | 9.8284 | 1300 | 1452.1 | 0.688 64 | 5412.6 | 9.7797 |
| 1930.6 | 0.517 97 | 5680.8 | 10.048 | 1400 | 1716.1 | 0.582 71 | 5680.7 | 9.9935 | 1400 | 1544.5 | 0.647 45 | 5680.6 | 9.9448 |
| 2046.1 | 0.488 74 | 5953.6 | 10.206 | 1500 | 1818.8 | 0.549 82 | 5953.5 | 10.152 | 1500 | 1636.9 | 0.610 91 | 5953.5 | 10.103 |
| 2161.5 | 0.462 64 | 6230.8 | 10.358 | 1600 | 1921.4 | 0.520 46 | 6230.7 | 10.304 | 1600 | 1729.3 | 0.578 28 | 6230.7 | 10.255 |
| 2392.4 | 0.417 99 | 6797.0 | 10.645 | 1800 | 2126.6 | 0.470 23 | 6797.0 | 10.591 | 1800 | 1914.0 | 0.522 47 | 6797.0 | 10.542 |
| 2623.2 | 0.381 21 | 7376.9 | 10.912 | 2000 | 2331.8 | 0.428 85 | 7376.9 | 10.858 | 2000 | 2098.7 | 0.476 49 | 7376.9 | 10.809 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.55 MPa ($t_s = 155.456\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.60 MPa ($t_s = 158.826\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.65 MPa ($t_s = 161.980\text{ }^{\circ}\text{C}$) | | | |
|--|---------|--------|-----------|-----------------------|--|---------|--------|-----------|-----------------------|--|---------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.096 68 | 911.85 | 655.76 | 1.8970 | $t_s(\text{L})$ | 1.100 60 | 908.59 | 670.38 | 1.9308 | $t_s(\text{L})$ | 1.104 36 | 905.51 | 684.08 | 1.9623 |
| 342.60 | 2.9189 | 2752.3 | 6.7886 | $t_s(\text{V})$ | 315.58 | 3.1687 | 2756.1 | 6.7592 | $t_s(\text{V})$ | 292.59 | 3.4177 | 2759.6 | 6.7322 |
| 0.999 93 | 1000.07 | 0.52 | -0.000 12 | 0 | 0.999 90 | 1000.10 | 0.57 | -0.000 11 | 0 | 0.999 88 | 1000.12 | 0.62 | -0.000 11 |
| 0.999 81 | 1000.19 | 21.57 | 0.076 24 | 5 | 0.999 79 | 1000.21 | 21.62 | 0.076 24 | 5 | 0.999 76 | 1000.24 | 21.67 | 0.076 24 |
| 1.000 08 | 999.92 | 42.56 | 0.151 04 | 10 | 1.000 06 | 999.94 | 42.61 | 0.151 03 | 10 | 1.000 04 | 999.96 | 42.65 | 0.151 03 |
| 1.000 69 | 999.31 | 63.51 | 0.224 38 | 15 | 1.000 67 | 999.34 | 63.55 | 0.224 37 | 15 | 1.000 64 | 999.36 | 63.60 | 0.224 37 |
| 1.001 59 | 998.41 | 84.43 | 0.296 37 | 20 | 1.001 57 | 998.44 | 84.48 | 0.296 36 | 20 | 1.001 54 | 998.46 | 84.52 | 0.296 35 |
| 1.002 76 | 997.25 | 105.34 | 0.367 08 | 25 | 1.002 73 | 997.27 | 105.38 | 0.367 07 | 25 | 1.002 71 | 997.30 | 105.43 | 0.367 06 |
| 1.004 17 | 995.85 | 126.23 | 0.436 59 | 30 | 1.004 15 | 995.87 | 126.28 | 0.436 57 | 30 | 1.004 12 | 995.89 | 126.32 | 0.436 56 |
| 1.005 80 | 994.23 | 147.12 | 0.504 94 | 35 | 1.005 78 | 994.25 | 147.17 | 0.504 92 | 35 | 1.005 76 | 994.28 | 147.21 | 0.504 91 |
| 1.007 64 | 992.41 | 168.01 | 0.572 19 | 40 | 1.007 62 | 992.44 | 168.06 | 0.572 17 | 40 | 1.007 60 | 992.46 | 168.10 | 0.572 15 |
| 1.009 68 | 990.41 | 188.91 | 0.638 38 | 45 | 1.009 66 | 990.43 | 188.95 | 0.638 36 | 45 | 1.009 64 | 990.45 | 188.99 | 0.638 34 |
| 1.011 91 | 988.23 | 209.81 | 0.703 56 | 50 | 1.011 89 | 988.25 | 209.85 | 0.703 54 | 50 | 1.011 86 | 988.27 | 209.89 | 0.703 51 |
| 1.014 31 | 985.89 | 230.71 | 0.767 76 | 55 | 1.014 29 | 985.91 | 230.75 | 0.767 73 | 55 | 1.014 27 | 985.93 | 230.80 | 0.767 71 |
| 1.016 89 | 983.39 | 251.63 | 0.831 01 | 60 | 1.016 87 | 983.41 | 251.67 | 0.830 98 | 60 | 1.016 84 | 983.44 | 251.71 | 0.830 96 |
| 1.019 63 | 980.75 | 272.55 | 0.893 36 | 65 | 1.019 61 | 980.77 | 272.59 | 0.893 33 | 65 | 1.019 58 | 980.79 | 272.63 | 0.893 30 |
| 1.022 53 | 977.96 | 293.49 | 0.954 82 | 70 | 1.022 51 | 977.98 | 293.53 | 0.954 79 | 70 | 1.022 49 | 978.01 | 293.57 | 0.954 76 |
| 1.025 60 | 975.04 | 314.44 | 1.0154 | 75 | 1.025 57 | 975.06 | 314.48 | 1.0154 | 75 | 1.025 55 | 975.09 | 314.52 | 1.0154 |
| 1.028 82 | 971.99 | 335.41 | 1.0752 | 80 | 1.028 79 | 972.01 | 335.45 | 1.0752 | 80 | 1.028 77 | 972.04 | 335.49 | 1.0752 |
| 1.032 19 | 968.81 | 356.40 | 1.1343 | 85 | 1.032 17 | 968.84 | 356.44 | 1.1342 | 85 | 1.032 14 | 968.86 | 356.48 | 1.1342 |
| 1.035 72 | 965.51 | 377.41 | 1.1925 | 90 | 1.035 69 | 965.54 | 377.45 | 1.1925 | 90 | 1.035 67 | 965.56 | 377.49 | 1.1924 |
| 1.039 40 | 962.10 | 398.44 | 1.2500 | 95 | 1.039 37 | 962.12 | 398.48 | 1.2500 | 95 | 1.039 35 | 962.14 | 398.52 | 1.2500 |
| 1.043 23 | 958.56 | 419.50 | 1.3069 | 100 | 1.043 21 | 958.58 | 419.54 | 1.3068 | 100 | 1.043 18 | 958.61 | 419.58 | 1.3068 |
| 1.047 22 | 954.91 | 440.59 | 1.3630 | 105 | 1.047 19 | 954.93 | 440.63 | 1.3630 | 105 | 1.047 17 | 954.96 | 440.67 | 1.3629 |
| 1.051 36 | 951.14 | 461.71 | 1.4185 | 110 | 1.051 34 | 951.17 | 461.75 | 1.4184 | 110 | 1.051 31 | 951.19 | 461.78 | 1.4184 |
| 1.055 67 | 947.27 | 482.87 | 1.4733 | 115 | 1.055 64 | 947.29 | 482.90 | 1.4733 | 115 | 1.055 61 | 947.32 | 482.94 | 1.4733 |
| 1.060 13 | 943.28 | 504.06 | 1.5276 | 120 | 1.060 10 | 943.31 | 504.09 | 1.5275 | 120 | 1.060 07 | 943.33 | 504.13 | 1.5275 |
| 1.064 75 | 939.19 | 525.29 | 1.5813 | 125 | 1.064 72 | 939.21 | 525.33 | 1.5812 | 125 | 1.064 69 | 939.24 | 525.36 | 1.5812 |
| 1.069 54 | 934.98 | 546.57 | 1.6344 | 130 | 1.069 51 | 935.01 | 546.61 | 1.6343 | 130 | 1.069 48 | 935.03 | 546.64 | 1.6343 |
| 1.074 50 | 930.66 | 567.90 | 1.6870 | 135 | 1.074 47 | 930.69 | 567.93 | 1.6869 | 135 | 1.074 44 | 930.72 | 567.97 | 1.6869 |
| 1.079 64 | 926.24 | 589.28 | 1.7390 | 140 | 1.079 61 | 926.26 | 589.32 | 1.7390 | 140 | 1.079 57 | 926.29 | 589.35 | 1.7389 |
| 1.084 95 | 921.70 | 610.72 | 1.7906 | 145 | 1.084 92 | 921.73 | 610.76 | 1.7905 | 145 | 1.084 89 | 921.75 | 610.79 | 1.7905 |
| 1.090 45 | 917.05 | 632.22 | 1.8417 | 150 | 1.090 42 | 917.08 | 632.26 | 1.8417 | 150 | 1.090 39 | 917.11 | 632.29 | 1.8416 |
| 1.096 15 | 912.29 | 653.79 | 1.8924 | 155 | 1.096 11 | 912.32 | 653.82 | 1.8923 | 155 | 1.096 08 | 912.35 | 653.85 | 1.8923 |
| 347.15 | 2.8806 | 2763.3 | 6.8140 | 160 | 316.68 | 3.1578 | 2759.0 | 6.7659 | 160 | 1.101 97 | 907.47 | 675.49 | 1.9425 |
| 352.08 | 2.8403 | 2775.1 | 6.8410 | 165 | 321.29 | 3.1124 | 2771.1 | 6.7937 | 165 | 295.21 | 3.3874 | 2767.1 | 6.7494 |
| 356.95 | 2.8015 | 2786.6 | 6.8673 | 170 | 325.83 | 3.0690 | 2783.0 | 6.8206 | 170 | 299.48 | 3.3391 | 2779.2 | 6.7769 |
| 361.77 | 2.7642 | 2798.0 | 6.8928 | 175 | 330.32 | 3.0274 | 2794.6 | 6.8466 | 175 | 303.69 | 3.2929 | 2791.1 | 6.8035 |
| 366.54 | 2.7282 | 2809.3 | 6.9178 | 180 | 334.75 | 2.9873 | 2806.0 | 6.8720 | 180 | 307.84 | 3.2484 | 2802.7 | 6.8293 |
| 371.27 | 2.6935 | 2820.4 | 6.9422 | 185 | 339.15 | 2.9486 | 2817.3 | 6.8968 | 185 | 311.95 | 3.2056 | 2814.2 | 6.8546 |
| 375.97 | 2.6598 | 2831.4 | 6.9662 | 190 | 343.50 | 2.9112 | 2828.5 | 6.9211 | 190 | 316.02 | 3.1643 | 2825.6 | 6.8792 |
| 380.63 | 2.6272 | 2842.4 | 6.9897 | 195 | 347.83 | 2.8750 | 2839.6 | 6.9449 | 195 | 320.06 | 3.1244 | 2836.8 | 6.9033 |
| 385.27 | 2.5956 | 2853.2 | 7.0128 | 200 | 352.12 | 2.8399 | 2850.6 | 6.9683 | 200 | 324.06 | 3.0858 | 2848.0 | 6.9270 |
| 394.47 | 2.5351 | 2874.8 | 7.0579 | 210 | 360.63 | 2.7729 | 2872.4 | 7.0139 | 210 | 331.99 | 3.0121 | 2870.0 | 6.9731 |
| 403.58 | 2.4778 | 2896.1 | 7.1016 | 220 | 369.05 | 2.7097 | 2893.9 | 7.0580 | 220 | 339.83 | 2.9426 | 2891.7 | 7.0176 |
| 412.61 | 2.4236 | 2917.3 | 7.1441 | 230 | 377.40 | 2.6497 | 2915.3 | 7.1008 | 230 | 347.59 | 2.8769 | 2913.2 | 7.0608 |
| 421.59 | 2.3720 | 2938.3 | 7.1855 | 240 | 385.68 | 2.5929 | 2936.5 | 7.1426 | 240 | 355.28 | 2.8146 | 2934.6 | 7.1028 |
| 430.51 | 2.3228 | 2959.3 | 7.2259 | 250 | 393.90 | 2.5387 | 2957.6 | 7.1832 | 250 | 362.92 | 2.7554 | 2955.8 | 7.1437 |
| 439.38 | 2.2759 | 2980.2 | 7.2655 | 260 | 402.08 | 2.4871 | 2978.5 | 7.2230 | 260 | 370.51 | 2.6990 | 2976.9 | 7.1837 |
| 448.21 | 2.2311 | 3001.0 | 7.3041 | 270 | 410.21 | 2.4378 | 2999.5 | 7.2619 | 270 | 378.06 | 2.6451 | 2997.9 | 7.2228 |
| 457.01 | 2.1882 | 3021.8 | 7.3421 | 280 | 418.31 | 2.3906 | 3020.3 | 7.3000 | 280 | 385.57 | 2.5936 | 3018.9 | 7.2611 |
| 465.77 | 2.1470 | 3042.5 | 7.3793 | 290 | 426.38 | 2.3453 | 3041.2 | 7.3373 | 290 | 393.05 | 2.5442 | 3039.8 | 7.2986 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.55 MPa ($t_s = 155.456\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.60 MPa ($t_s = 158.826\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.65 MPa ($t_s = 161.980\text{ }^{\circ}\text{C}$) | | | |
|--|----------|--------|--------|-----------------------|--|----------|--------|--------|-----------------------|--|----------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 474.51 | 2.1075 | 3063.3 | 7.4158 | 300 | 434.42 | 2.3019 | 3062.0 | 7.3740 | 300 | 400.49 | 2.4969 | 3060.7 | 7.3353 |
| 483.22 | 2.0695 | 3084.0 | 7.4517 | 310 | 442.43 | 2.2602 | 3082.8 | 7.4100 | 310 | 407.92 | 2.4515 | 3081.6 | 7.3715 |
| 491.91 | 2.0329 | 3104.8 | 7.4869 | 320 | 450.42 | 2.2201 | 3103.6 | 7.4453 | 320 | 415.32 | 2.4078 | 3102.5 | 7.4070 |
| 500.57 | 1.9977 | 3125.5 | 7.5216 | 330 | 458.39 | 2.1815 | 3124.4 | 7.4801 | 330 | 422.70 | 2.3658 | 3123.4 | 7.4419 |
| 509.22 | 1.9638 | 3146.3 | 7.5558 | 340 | 466.34 | 2.1444 | 3145.3 | 7.5144 | 340 | 430.06 | 2.3253 | 3144.2 | 7.4762 |
| 517.86 | 1.9310 | 3167.1 | 7.5894 | 350 | 474.27 | 2.1085 | 3166.1 | 7.5481 | 350 | 437.40 | 2.2862 | 3165.1 | 7.5100 |
| 526.47 | 1.8994 | 3187.9 | 7.6226 | 360 | 482.19 | 2.0739 | 3187.0 | 7.5813 | 360 | 444.73 | 2.2486 | 3186.1 | 7.5433 |
| 535.08 | 1.8689 | 3208.8 | 7.6553 | 370 | 490.10 | 2.0404 | 3207.9 | 7.6141 | 370 | 452.04 | 2.2122 | 3207.0 | 7.5761 |
| 543.67 | 1.8394 | 3229.7 | 7.6875 | 380 | 497.99 | 2.0081 | 3228.8 | 7.6464 | 380 | 459.34 | 2.1770 | 3228.0 | 7.6085 |
| 552.25 | 1.8108 | 3250.6 | 7.7193 | 390 | 505.87 | 1.9768 | 3249.8 | 7.6782 | 390 | 466.63 | 2.1430 | 3249.0 | 7.6404 |
| 560.82 | 1.7831 | 3271.6 | 7.7507 | 400 | 513.74 | 1.9465 | 3270.8 | 7.7097 | 400 | 473.91 | 2.1101 | 3270.0 | 7.6719 |
| 569.37 | 1.7563 | 3292.6 | 7.7817 | 410 | 521.60 | 1.9172 | 3291.8 | 7.7407 | 410 | 481.18 | 2.0782 | 3291.1 | 7.7029 |
| 577.92 | 1.7303 | 3313.6 | 7.8123 | 420 | 529.45 | 1.8887 | 3312.9 | 7.7713 | 420 | 488.44 | 2.0473 | 3312.2 | 7.7336 |
| 586.47 | 1.7051 | 3334.7 | 7.8425 | 430 | 537.29 | 1.8612 | 3334.0 | 7.8016 | 430 | 495.69 | 2.0174 | 3333.4 | 7.7639 |
| 595.00 | 1.6807 | 3355.9 | 7.8724 | 440 | 545.13 | 1.8344 | 3355.2 | 7.8315 | 440 | 502.93 | 1.9883 | 3354.6 | 7.7939 |
| 603.53 | 1.6569 | 3377.1 | 7.9019 | 450 | 552.96 | 1.8085 | 3376.5 | 7.8611 | 450 | 510.17 | 1.9601 | 3375.8 | 7.8235 |
| 612.05 | 1.6339 | 3398.4 | 7.9311 | 460 | 560.78 | 1.7832 | 3397.7 | 7.8903 | 460 | 517.40 | 1.9328 | 3397.1 | 7.8527 |
| 620.56 | 1.6114 | 3419.7 | 7.9600 | 470 | 568.59 | 1.7587 | 3419.1 | 7.9192 | 470 | 524.62 | 1.9061 | 3418.5 | 7.8817 |
| 629.07 | 1.5897 | 3441.0 | 7.9885 | 480 | 576.40 | 1.7349 | 3440.5 | 7.9478 | 480 | 531.84 | 1.8803 | 3439.9 | 7.9103 |
| 637.57 | 1.5685 | 3462.5 | 8.0168 | 490 | 584.20 | 1.7117 | 3461.9 | 7.9761 | 490 | 539.05 | 1.8551 | 3461.3 | 7.9386 |
| 646.07 | 1.5478 | 3483.9 | 8.0447 | 500 | 592.00 | 1.6892 | 3483.4 | 8.0041 | 500 | 546.25 | 1.8306 | 3482.9 | 7.9666 |
| 663.05 | 1.5082 | 3527.1 | 8.0998 | 520 | 607.58 | 1.6459 | 3526.6 | 8.0592 | 520 | 560.65 | 1.7836 | 3526.1 | 8.0218 |
| 680.01 | 1.4706 | 3570.4 | 8.1538 | 540 | 623.15 | 1.6048 | 3570.0 | 8.1132 | 540 | 575.03 | 1.7390 | 3569.5 | 8.0759 |
| 696.96 | 1.4348 | 3614.1 | 8.2068 | 560 | 638.70 | 1.5657 | 3613.6 | 8.1663 | 560 | 589.40 | 1.6966 | 3613.2 | 8.1289 |
| 713.89 | 1.4008 | 3657.9 | 8.2589 | 580 | 654.24 | 1.5285 | 3657.5 | 8.2183 | 580 | 603.76 | 1.6563 | 3657.1 | 8.1810 |
| 730.82 | 1.3683 | 3702.1 | 8.3100 | 600 | 669.76 | 1.4931 | 3701.7 | 8.2695 | 600 | 618.10 | 1.6179 | 3701.3 | 8.2322 |
| 747.73 | 1.3374 | 3746.5 | 8.3603 | 620 | 685.28 | 1.4593 | 3746.1 | 8.3198 | 620 | 632.43 | 1.5812 | 3745.7 | 8.2825 |
| 764.63 | 1.3078 | 3791.1 | 8.4097 | 640 | 700.78 | 1.4270 | 3790.8 | 8.3693 | 640 | 646.75 | 1.5462 | 3790.4 | 8.3320 |
| 781.53 | 1.2795 | 3836.1 | 8.4584 | 660 | 716.28 | 1.3961 | 3835.7 | 8.4180 | 660 | 661.06 | 1.5127 | 3835.4 | 8.3808 |
| 798.42 | 1.2525 | 3881.3 | 8.5063 | 680 | 731.76 | 1.3666 | 3880.9 | 8.4659 | 680 | 675.37 | 1.4807 | 3880.6 | 8.4287 |
| 815.30 | 1.2265 | 3926.7 | 8.5535 | 700 | 747.25 | 1.3382 | 3926.4 | 8.5131 | 700 | 689.67 | 1.4500 | 3926.1 | 8.4760 |
| 832.17 | 1.2017 | 3972.5 | 8.6000 | 720 | 762.72 | 1.3111 | 3972.2 | 8.5597 | 720 | 703.96 | 1.4205 | 3971.9 | 8.5225 |
| 849.04 | 1.1778 | 4018.5 | 8.6459 | 740 | 778.19 | 1.2850 | 4018.2 | 8.6056 | 740 | 718.24 | 1.3923 | 4017.9 | 8.5684 |
| 865.90 | 1.1549 | 4064.8 | 8.6912 | 760 | 793.65 | 1.2600 | 4064.5 | 8.6508 | 760 | 732.52 | 1.3651 | 4064.3 | 8.6137 |
| 882.76 | 1.1328 | 4111.3 | 8.7358 | 780 | 809.11 | 1.2359 | 4111.1 | 8.6954 | 780 | 746.80 | 1.3390 | 4110.8 | 8.6583 |
| 899.61 | 1.1116 | 4158.2 | 8.7798 | 800 | 824.57 | 1.2128 | 4157.9 | 8.7395 | 800 | 761.07 | 1.3139 | 4157.7 | 8.7024 |
| 916.46 | 1.0912 | 4205.3 | 8.8233 | 820 | 840.02 | 1.1904 | 4205.0 | 8.7830 | 820 | 775.34 | 1.2898 | 4204.8 | 8.7459 |
| 933.30 | 1.0715 | 4252.6 | 8.8663 | 840 | 855.47 | 1.1690 | 4252.4 | 8.8260 | 840 | 789.60 | 1.2665 | 4252.2 | 8.7889 |
| 950.15 | 1.0525 | 4300.3 | 8.9087 | 860 | 870.91 | 1.1482 | 4300.1 | 8.8684 | 860 | 803.86 | 1.2440 | 4299.9 | 8.8313 |
| 966.98 | 1.0341 | 4348.2 | 8.9506 | 880 | 886.35 | 1.1282 | 4348.0 | 8.9103 | 880 | 818.12 | 1.2223 | 4347.8 | 8.8732 |
| 983.82 | 1.0164 | 4396.4 | 8.9920 | 900 | 901.78 | 1.1089 | 4396.2 | 8.9518 | 900 | 832.37 | 1.2014 | 4396.0 | 8.9147 |
| 1000.7 | 0.999 35 | 4444.8 | 9.0330 | 920 | 917.22 | 1.0903 | 4444.7 | 8.9927 | 920 | 846.62 | 1.1812 | 4444.5 | 8.9556 |
| 1017.5 | 0.982 82 | 4493.5 | 9.0735 | 940 | 932.65 | 1.0722 | 4493.4 | 9.0332 | 940 | 860.87 | 1.1616 | 4493.2 | 8.9962 |
| 1034.3 | 0.966 83 | 4542.5 | 9.1135 | 960 | 948.08 | 1.0548 | 4542.4 | 9.0733 | 960 | 875.12 | 1.1427 | 4542.2 | 9.0362 |
| 1051.1 | 0.951 35 | 4591.8 | 9.1531 | 980 | 963.51 | 1.0379 | 4591.6 | 9.1129 | 980 | 889.36 | 1.1244 | 4591.5 | 9.0758 |
| 1068.0 | 0.936 37 | 4641.3 | 9.1923 | 1000 | 978.93 | 1.0215 | 4641.1 | 9.1521 | 1000 | 903.60 | 1.1067 | 4641.0 | 9.1150 |
| 1152.0 | 0.868 02 | 4892.5 | 9.3822 | 1100 | 1056.0 | 0.946 95 | 4892.4 | 9.3420 | 1100 | 974.78 | 1.0259 | 4892.2 | 9.3050 |
| 1236.1 | 0.809 00 | 5149.7 | 9.5630 | 1200 | 1133.1 | 0.882 54 | 5149.6 | 9.5228 | 1200 | 1045.9 | 0.956 09 | 5149.5 | 9.4858 |
| 1320.1 | 0.757 50 | 5412.6 | 9.7356 | 1300 | 1210.1 | 0.826 36 | 5412.5 | 9.6954 | 1300 | 1117.0 | 0.895 22 | 5412.4 | 9.6584 |
| 1404.1 | 0.712 18 | 5680.6 | 9.9008 | 1400 | 1287.1 | 0.776 92 | 5680.5 | 9.8606 | 1400 | 1188.1 | 0.841 66 | 5680.5 | 9.8236 |
| 1488.1 | 0.671 99 | 5953.4 | 10.059 | 1500 | 1364.1 | 0.733 07 | 5953.4 | 10.019 | 1500 | 1259.2 | 0.794 15 | 5953.3 | 9.9820 |
| 1572.1 | 0.636 09 | 6230.7 | 10.211 | 1600 | 1441.1 | 0.693 91 | 6230.6 | 10.171 | 1600 | 1330.3 | 0.751 72 | 6230.6 | 10.134 |
| 1740.0 | 0.574 71 | 6796.9 | 10.498 | 1800 | 1595.1 | 0.626 94 | 6796.9 | 10.458 | 1800 | 1472.4 | 0.679 17 | 6796.9 | 10.421 |
| 1907.9 | 0.524 13 | 7376.9 | 10.765 | 2000 | 1749.0 | 0.571 77 | 7376.8 | 10.725 | 2000 | 1614.5 | 0.619 40 | 7376.8 | 10.688 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.70 MPa ($t_s = 164.946\text{ }^{\circ}\text{C}$) | | | | | 0.75 MPa ($t_s = 167.749\text{ }^{\circ}\text{C}$) | | | | | 0.80 MPa ($t_s = 170.406\text{ }^{\circ}\text{C}$) | | | | |
|--|---------|--------|-----------|-----------------------|--|---------|--------|-----------|-----------------------|--|---------|--------|-----------|-----------------------|
| v | ρ | h | s | $t, ^{\circ}\text{C}$ | v | ρ | h | s | $t, ^{\circ}\text{C}$ | v | ρ | h | s | $t, ^{\circ}\text{C}$ |
| 1.107 96 | 902.56 | 697.00 | 1.9918 | $t_s(\text{L})$ | 1.111 43 | 899.74 | 709.24 | 2.0195 | $t_s(\text{L})$ | 1.114 78 | 897.04 | 720.86 | 2.0457 | $t_s(\text{L})$ |
| 272.77 | 3.6660 | 2762.8 | 6.7071 | $t_s(\text{V})$ | 255.51 | 3.9137 | 2765.6 | 6.6836 | $t_s(\text{V})$ | 240.34 | 4.1608 | 2768.3 | 6.6616 | $t_s(\text{V})$ |
| 0.999 85 | 1000.15 | 0.67 | -0.000 11 | 0 | 0.999 83 | 1000.17 | 0.72 | -0.000 10 | 0 | 0.999 80 | 1000.20 | 0.77 | -0.000 10 | 0 |
| 0.999 74 | 1000.26 | 21.72 | 0.076 24 | 5 | 0.999 71 | 1000.29 | 21.77 | 0.076 24 | 5 | 0.999 69 | 1000.31 | 21.82 | 0.076 24 | 5 |
| 1.000 01 | 999.99 | 42.70 | 0.151 02 | 10 | 0.999 99 | 1000.01 | 42.75 | 0.151 02 | 10 | 0.999 96 | 1000.04 | 42.80 | 0.151 01 | 10 |
| 1.000 62 | 999.38 | 63.65 | 0.224 36 | 15 | 1.000 60 | 999.41 | 63.70 | 0.224 35 | 15 | 1.000 57 | 999.43 | 63.75 | 0.224 34 | 15 |
| 1.001 52 | 998.48 | 84.57 | 0.296 34 | 20 | 1.001 50 | 998.50 | 84.62 | 0.296 33 | 20 | 1.001 48 | 998.53 | 84.66 | 0.296 32 | 20 |
| 1.002 69 | 997.32 | 105.47 | 0.367 04 | 25 | 1.002 67 | 997.34 | 105.52 | 0.367 03 | 25 | 1.002 64 | 997.36 | 105.57 | 0.367 02 | 25 |
| 1.004 10 | 995.92 | 126.37 | 0.436 54 | 30 | 1.004 08 | 995.94 | 126.41 | 0.436 53 | 30 | 1.004 06 | 995.96 | 126.46 | 0.436 51 | 30 |
| 1.005 74 | 994.30 | 147.26 | 0.504 89 | 35 | 1.005 71 | 994.32 | 147.30 | 0.504 87 | 35 | 1.005 69 | 994.34 | 147.35 | 0.504 85 | 35 |
| 1.007 58 | 992.48 | 168.15 | 0.572 13 | 40 | 1.007 56 | 992.50 | 168.19 | 0.572 11 | 40 | 1.007 53 | 992.52 | 168.24 | 0.572 09 | 40 |
| 1.009 62 | 990.47 | 189.04 | 0.638 32 | 45 | 1.009 59 | 990.50 | 189.08 | 0.638 30 | 45 | 1.009 57 | 990.52 | 189.13 | 0.638 28 | 45 |
| 1.011 84 | 988.30 | 209.93 | 0.703 49 | 50 | 1.011 82 | 988.32 | 209.98 | 0.703 47 | 50 | 1.011 80 | 988.34 | 210.02 | 0.703 44 | 50 |
| 1.014 25 | 985.95 | 230.84 | 0.767 68 | 55 | 1.014 22 | 985.98 | 230.88 | 0.767 66 | 55 | 1.014 20 | 986.00 | 230.92 | 0.767 63 | 55 |
| 1.016 82 | 983.46 | 251.75 | 0.830 93 | 60 | 1.016 80 | 983.48 | 251.79 | 0.830 90 | 60 | 1.016 78 | 983.50 | 251.84 | 0.830 88 | 60 |
| 1.019 56 | 980.81 | 272.68 | 0.893 27 | 65 | 1.019 54 | 980.84 | 272.72 | 0.893 24 | 65 | 1.019 52 | 980.86 | 272.76 | 0.893 21 | 65 |
| 1.022 46 | 978.03 | 293.61 | 0.954 73 | 70 | 1.022 44 | 978.05 | 293.65 | 0.954 70 | 70 | 1.022 42 | 978.07 | 293.69 | 0.954 67 | 70 |
| 1.025 53 | 975.11 | 314.56 | 1.0153 | 75 | 1.025 50 | 975.13 | 314.60 | 1.0153 | 75 | 1.025 48 | 975.15 | 314.64 | 1.0153 | 75 |
| 1.028 74 | 972.06 | 335.53 | 1.0751 | 80 | 1.028 72 | 972.08 | 335.57 | 1.0751 | 80 | 1.028 70 | 972.10 | 335.61 | 1.0751 | 80 |
| 1.032 12 | 968.88 | 356.52 | 1.1342 | 85 | 1.032 09 | 968.90 | 356.56 | 1.1341 | 85 | 1.032 07 | 968.93 | 356.60 | 1.1341 | 85 |
| 1.035 64 | 965.58 | 377.53 | 1.1924 | 90 | 1.035 62 | 965.61 | 377.57 | 1.1924 | 90 | 1.035 59 | 965.63 | 377.60 | 1.1923 | 90 |
| 1.039 32 | 962.17 | 398.56 | 1.2499 | 95 | 1.039 30 | 962.19 | 398.60 | 1.2499 | 95 | 1.039 27 | 962.21 | 398.63 | 1.2499 | 95 |
| 1.043 16 | 958.63 | 419.62 | 1.3067 | 100 | 1.043 13 | 958.65 | 419.65 | 1.3067 | 100 | 1.043 10 | 958.68 | 419.69 | 1.3067 | 100 |
| 1.047 14 | 954.98 | 440.70 | 1.3629 | 105 | 1.047 12 | 955.00 | 440.74 | 1.3628 | 105 | 1.047 09 | 955.03 | 440.78 | 1.3628 | 105 |
| 1.051 28 | 951.22 | 461.82 | 1.4184 | 110 | 1.051 26 | 951.24 | 461.86 | 1.4183 | 110 | 1.051 23 | 951.27 | 461.89 | 1.4183 | 110 |
| 1.055 58 | 947.34 | 482.97 | 1.4732 | 115 | 1.055 56 | 947.37 | 483.01 | 1.4732 | 115 | 1.055 53 | 947.39 | 483.04 | 1.4731 | 115 |
| 1.060 04 | 943.36 | 504.16 | 1.5275 | 120 | 1.060 02 | 943.38 | 504.20 | 1.5274 | 120 | 1.059 99 | 943.41 | 504.23 | 1.5274 | 120 |
| 1.064 67 | 939.26 | 525.40 | 1.5811 | 125 | 1.064 64 | 939.29 | 525.43 | 1.5811 | 125 | 1.064 61 | 939.31 | 525.47 | 1.5810 | 125 |
| 1.069 45 | 935.06 | 546.67 | 1.6342 | 130 | 1.069 42 | 935.08 | 546.71 | 1.6342 | 130 | 1.069 39 | 935.11 | 546.74 | 1.6341 | 130 |
| 1.074 41 | 930.74 | 568.00 | 1.6868 | 135 | 1.074 38 | 930.77 | 568.03 | 1.6868 | 135 | 1.074 35 | 930.80 | 568.07 | 1.6867 | 135 |
| 1.079 54 | 926.32 | 589.38 | 1.7389 | 140 | 1.079 51 | 926.35 | 589.41 | 1.7388 | 140 | 1.079 48 | 926.37 | 589.45 | 1.7388 | 140 |
| 1.084 85 | 921.78 | 610.82 | 1.7904 | 145 | 1.084 82 | 921.81 | 610.85 | 1.7904 | 145 | 1.084 79 | 921.84 | 610.88 | 1.7903 | 145 |
| 1.090 35 | 917.14 | 632.32 | 1.8416 | 150 | 1.090 32 | 917.16 | 632.35 | 1.8415 | 150 | 1.090 28 | 917.19 | 632.38 | 1.8414 | 150 |
| 1.096 04 | 912.37 | 653.88 | 1.8922 | 155 | 1.096 01 | 912.40 | 653.91 | 1.8922 | 155 | 1.095 97 | 912.43 | 653.94 | 1.8921 | 155 |
| 1.101 93 | 907.50 | 675.52 | 1.9425 | 160 | 1.101 89 | 907.53 | 675.55 | 1.9424 | 160 | 1.101 86 | 907.56 | 675.58 | 1.9423 | 160 |
| 272.82 | 3.6654 | 2762.9 | 6.7074 | 165 | 1.107 99 | 902.54 | 697.26 | 1.9922 | 165 | 1.107 95 | 902.57 | 697.29 | 1.9922 | 165 |
| 276.87 | 3.6118 | 2775.4 | 6.7357 | 170 | 257.24 | 3.8874 | 2771.4 | 6.6966 | 170 | 1.114 26 | 897.46 | 719.09 | 2.0416 | 170 |
| 280.84 | 3.5607 | 2787.5 | 6.7629 | 175 | 261.02 | 3.8311 | 2783.8 | 6.7245 | 175 | 243.66 | 4.1041 | 2780.0 | 6.6879 | 175 |
| 284.76 | 3.5118 | 2799.4 | 6.7893 | 180 | 264.74 | 3.7774 | 2795.9 | 6.7514 | 180 | 247.20 | 4.0453 | 2792.4 | 6.7154 | 180 |
| 288.63 | 3.4647 | 2811.1 | 6.8149 | 185 | 268.40 | 3.7258 | 2807.8 | 6.7775 | 185 | 250.68 | 3.9891 | 2804.6 | 6.7420 | 185 |
| 292.45 | 3.4193 | 2822.6 | 6.8399 | 190 | 272.02 | 3.6763 | 2819.5 | 6.8029 | 190 | 254.12 | 3.9351 | 2816.5 | 6.7679 | 190 |
| 296.24 | 3.3756 | 2834.0 | 6.8644 | 195 | 275.60 | 3.6285 | 2831.1 | 6.8277 | 195 | 257.52 | 3.8832 | 2828.2 | 6.7930 | 195 |
| 300.00 | 3.3333 | 2845.3 | 6.8884 | 200 | 279.14 | 3.5824 | 2842.5 | 6.8520 | 200 | 260.88 | 3.8332 | 2839.7 | 6.8176 | 200 |
| 307.44 | 3.2527 | 2867.5 | 6.9349 | 210 | 286.15 | 3.4947 | 2865.0 | 6.8991 | 210 | 267.52 | 3.7381 | 2862.5 | 6.8653 | 210 |
| 314.78 | 3.1768 | 2889.5 | 6.9799 | 220 | 293.06 | 3.4123 | 2887.2 | 6.9445 | 220 | 274.05 | 3.6489 | 2884.9 | 6.9111 | 220 |
| 322.04 | 3.1052 | 2911.2 | 7.0234 | 230 | 299.89 | 3.3346 | 2909.1 | 6.9884 | 230 | 280.50 | 3.5650 | 2907.0 | 6.9554 | 230 |
| 329.23 | 3.0374 | 2932.7 | 7.0658 | 240 | 306.65 | 3.2611 | 2930.7 | 7.0311 | 240 | 286.88 | 3.4857 | 2928.8 | 6.9984 | 240 |
| 336.37 | 2.9729 | 2954.0 | 7.1070 | 250 | 313.35 | 3.1913 | 2952.2 | 7.0725 | 250 | 293.20 | 3.4106 | 2950.4 | 7.0401 | 250 |
| 343.45 | 2.9116 | 2975.2 | 7.1472 | 260 | 320.00 | 3.1250 | 2973.6 | 7.1130 | 260 | 299.47 | 3.3392 | 2971.9 | 7.0808 | 260 |
| 350.50 | 2.8531 | 2996.4 | 7.1865 | 270 | 326.61 | 3.0618 | 2994.8 | 7.1525 | 270 | 305.70 | 3.2712 | 2993.3 | 7.1205 | 270 |
| 357.50 | 2.7972 | 3017.5 | 7.2249 | 280 | 333.17 | 3.0014 | 3016.0 | 7.1911 | 280 | 311.89 | 3.2063 | 3014.5 | 7.1593 | 280 |
| 364.47 | 2.7437 | 3038.5 | 7.2625 | 290 | 339.71 | 2.9437 | 3037.1 | 7.2289 | 290 | 318.04 | 3.1443 | 3035.7 | 7.1973 | 290 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.70 MPa ($t_s = 164.946\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.75 MPa ($t_s = 167.749\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 0.80 MPa ($t_s = 170.406\text{ }^{\circ}\text{C}$) | | | |
|--|----------|--------|--------|-----------------------|--|----------|--------|--------|-----------------------|--|----------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 371.42 | 2.6924 | 3059.4 | 7.2995 | 300 | 346.21 | 2.8884 | 3058.2 | 7.2659 | 300 | 324.16 | 3.0849 | 3056.9 | 7.2345 |
| 378.33 | 2.6432 | 3080.4 | 7.3357 | 310 | 352.69 | 2.8353 | 3079.2 | 7.3023 | 310 | 330.26 | 3.0280 | 3078.0 | 7.2710 |
| 385.23 | 2.5959 | 3101.3 | 7.3713 | 320 | 359.15 | 2.7844 | 3100.2 | 7.3380 | 320 | 336.33 | 2.9733 | 3099.0 | 7.3068 |
| 392.10 | 2.5504 | 3122.3 | 7.4063 | 330 | 365.58 | 2.7354 | 3121.2 | 7.3731 | 330 | 342.38 | 2.9207 | 3120.1 | 7.3420 |
| 398.95 | 2.5066 | 3143.2 | 7.4407 | 340 | 372.00 | 2.6882 | 3142.2 | 7.4076 | 340 | 348.41 | 2.8702 | 3141.1 | 7.3766 |
| 405.79 | 2.4643 | 3164.2 | 7.4746 | 350 | 378.39 | 2.6427 | 3163.2 | 7.4416 | 350 | 354.42 | 2.8215 | 3162.2 | 7.4106 |
| 412.61 | 2.4236 | 3185.1 | 7.5080 | 360 | 384.78 | 2.5989 | 3184.2 | 7.4750 | 360 | 360.42 | 2.7745 | 3183.2 | 7.4441 |
| 419.42 | 2.3843 | 3206.1 | 7.5409 | 370 | 391.15 | 2.5566 | 3205.2 | 7.5080 | 370 | 366.41 | 2.7292 | 3204.3 | 7.4772 |
| 426.21 | 2.3462 | 3227.1 | 7.5733 | 380 | 397.50 | 2.5157 | 3226.2 | 7.5405 | 380 | 372.38 | 2.6855 | 3225.4 | 7.5097 |
| 432.99 | 2.3095 | 3248.1 | 7.6053 | 390 | 403.84 | 2.4762 | 3247.3 | 7.5725 | 390 | 378.34 | 2.6432 | 3246.5 | 7.5418 |
| 439.77 | 2.2739 | 3269.2 | 7.6368 | 400 | 410.18 | 2.4380 | 3268.4 | 7.6041 | 400 | 384.28 | 2.6022 | 3267.6 | 7.5734 |
| 446.53 | 2.2395 | 3290.3 | 7.6679 | 410 | 416.50 | 2.4010 | 3289.6 | 7.6353 | 410 | 390.22 | 2.5626 | 3288.8 | 7.6046 |
| 453.28 | 2.2061 | 3311.5 | 7.6986 | 420 | 422.81 | 2.3651 | 3310.7 | 7.6660 | 420 | 396.15 | 2.5243 | 3310.0 | 7.6355 |
| 460.03 | 2.1738 | 3332.7 | 7.7290 | 430 | 429.12 | 2.3304 | 3332.0 | 7.6964 | 430 | 402.07 | 2.4871 | 3331.3 | 7.6659 |
| 466.76 | 2.1424 | 3353.9 | 7.7590 | 440 | 435.41 | 2.2967 | 3353.2 | 7.7264 | 440 | 407.98 | 2.4511 | 3352.6 | 7.6960 |
| 473.49 | 2.1120 | 3375.2 | 7.7886 | 450 | 441.70 | 2.2640 | 3374.5 | 7.7561 | 450 | 413.89 | 2.4161 | 3373.9 | 7.7257 |
| 480.21 | 2.0824 | 3396.5 | 7.8179 | 460 | 447.99 | 2.2322 | 3395.9 | 7.7854 | 460 | 419.79 | 2.3822 | 3395.3 | 7.7550 |
| 486.93 | 2.0537 | 3417.9 | 7.8469 | 470 | 454.26 | 2.2014 | 3417.3 | 7.8144 | 470 | 425.68 | 2.3492 | 3416.7 | 7.7840 |
| 493.64 | 2.0258 | 3439.3 | 7.8755 | 480 | 460.53 | 2.1714 | 3438.7 | 7.8431 | 480 | 431.57 | 2.3171 | 3438.2 | 7.8127 |
| 500.34 | 1.9986 | 3460.8 | 7.9038 | 490 | 466.80 | 2.1423 | 3460.2 | 7.8715 | 490 | 437.45 | 2.2860 | 3459.7 | 7.8411 |
| 507.04 | 1.9722 | 3482.3 | 7.9319 | 500 | 473.06 | 2.1139 | 3481.8 | 7.8995 | 500 | 443.32 | 2.2557 | 3481.3 | 7.8692 |
| 520.43 | 1.9215 | 3525.6 | 7.9871 | 520 | 485.56 | 2.0595 | 3525.1 | 7.9548 | 520 | 455.06 | 2.1975 | 3524.6 | 7.9245 |
| 533.79 | 1.8734 | 3569.0 | 8.0412 | 540 | 498.05 | 2.0078 | 3568.6 | 8.0090 | 540 | 466.78 | 2.1423 | 3568.1 | 7.9787 |
| 547.15 | 1.8277 | 3612.8 | 8.0943 | 560 | 510.53 | 1.9588 | 3612.3 | 8.0621 | 560 | 478.48 | 2.0899 | 3611.9 | 8.0319 |
| 560.49 | 1.7842 | 3656.7 | 8.1465 | 580 | 522.99 | 1.9121 | 3656.3 | 8.1143 | 580 | 490.17 | 2.0401 | 3655.9 | 8.0841 |
| 573.81 | 1.7427 | 3700.9 | 8.1977 | 600 | 535.43 | 1.8676 | 3700.5 | 8.1655 | 600 | 501.85 | 1.9926 | 3700.1 | 8.1354 |
| 587.13 | 1.7032 | 3745.4 | 8.2480 | 620 | 547.87 | 1.8252 | 3745.0 | 8.2159 | 620 | 513.52 | 1.9473 | 3744.6 | 8.1858 |
| 600.44 | 1.6655 | 3790.1 | 8.2976 | 640 | 560.30 | 1.7848 | 3789.8 | 8.2654 | 640 | 525.18 | 1.9041 | 3789.4 | 8.2353 |
| 613.74 | 1.6294 | 3835.1 | 8.3463 | 660 | 572.72 | 1.7461 | 3834.8 | 8.3142 | 660 | 536.83 | 1.8628 | 3834.4 | 8.2841 |
| 627.03 | 1.5948 | 3880.3 | 8.3943 | 680 | 585.13 | 1.7090 | 3880.0 | 8.3622 | 680 | 548.47 | 1.8232 | 3879.7 | 8.3321 |
| 640.31 | 1.5617 | 3925.8 | 8.4415 | 700 | 597.54 | 1.6735 | 3925.5 | 8.4094 | 700 | 560.11 | 1.7854 | 3925.3 | 8.3794 |
| 653.59 | 1.5300 | 3971.6 | 8.4881 | 720 | 609.94 | 1.6395 | 3971.3 | 8.4560 | 720 | 571.74 | 1.7490 | 3971.1 | 8.4260 |
| 666.86 | 1.4996 | 4017.7 | 8.5340 | 740 | 622.33 | 1.6069 | 4017.4 | 8.5019 | 740 | 583.36 | 1.7142 | 4017.2 | 8.4720 |
| 680.13 | 1.4703 | 4064.0 | 8.5793 | 760 | 634.72 | 1.5755 | 4063.8 | 8.5472 | 760 | 594.98 | 1.6807 | 4063.5 | 8.5173 |
| 693.39 | 1.4422 | 4110.6 | 8.6239 | 780 | 647.10 | 1.5454 | 4110.4 | 8.5919 | 780 | 606.59 | 1.6486 | 4110.1 | 8.5619 |
| 706.64 | 1.4151 | 4157.5 | 8.6680 | 800 | 659.48 | 1.5164 | 4157.2 | 8.6360 | 800 | 618.20 | 1.6176 | 4157.0 | 8.6061 |
| 719.90 | 1.3891 | 4204.6 | 8.7115 | 820 | 671.85 | 1.4884 | 4204.4 | 8.6795 | 820 | 629.81 | 1.5878 | 4204.2 | 8.6496 |
| 733.15 | 1.3640 | 4252.0 | 8.7545 | 840 | 684.22 | 1.4615 | 4251.8 | 8.7225 | 840 | 641.41 | 1.5591 | 4251.6 | 8.6926 |
| 746.39 | 1.3398 | 4299.7 | 8.7970 | 860 | 696.59 | 1.4356 | 4299.5 | 8.7650 | 860 | 653.00 | 1.5314 | 4299.3 | 8.7351 |
| 759.63 | 1.3164 | 4347.6 | 8.8389 | 880 | 708.95 | 1.4105 | 4347.4 | 8.8069 | 880 | 664.60 | 1.5047 | 4347.2 | 8.7770 |
| 772.87 | 1.2939 | 4395.8 | 8.8804 | 900 | 721.31 | 1.3864 | 4395.7 | 8.8484 | 900 | 676.19 | 1.4789 | 4395.5 | 8.8185 |
| 786.11 | 1.2721 | 4444.3 | 8.9213 | 920 | 733.67 | 1.3630 | 4444.1 | 8.8894 | 920 | 687.78 | 1.4540 | 4444.0 | 8.8595 |
| 799.34 | 1.2510 | 4493.0 | 8.9618 | 940 | 746.02 | 1.3404 | 4492.9 | 8.9299 | 940 | 699.36 | 1.4299 | 4492.7 | 8.9000 |
| 812.57 | 1.2307 | 4542.0 | 9.0019 | 960 | 758.37 | 1.3186 | 4541.9 | 8.9699 | 960 | 710.95 | 1.4066 | 4541.7 | 8.9400 |
| 825.80 | 1.2109 | 4591.3 | 9.0415 | 980 | 770.72 | 1.2975 | 4591.2 | 9.0096 | 980 | 722.53 | 1.3840 | 4591.0 | 8.9797 |
| 839.03 | 1.1919 | 4640.8 | 9.0807 | 1000 | 783.07 | 1.2770 | 4640.7 | 9.0488 | 1000 | 734.11 | 1.3622 | 4640.5 | 9.0189 |
| 905.14 | 1.1048 | 4892.1 | 9.2707 | 1100 | 844.78 | 1.1837 | 4892.0 | 9.2388 | 1100 | 791.97 | 1.2627 | 4891.9 | 9.2089 |
| 971.21 | 1.0296 | 5149.4 | 9.4516 | 1200 | 906.46 | 1.1032 | 5149.3 | 9.4197 | 1200 | 849.80 | 1.1767 | 5149.2 | 9.3898 |
| 1037.3 | 0.964 08 | 5412.3 | 9.6242 | 1300 | 968.11 | 1.0329 | 5412.2 | 9.5923 | 1300 | 907.60 | 1.1018 | 5412.2 | 9.5625 |
| 1103.3 | 0.906 39 | 5680.4 | 9.7894 | 1400 | 1029.7 | 0.971 12 | 5680.3 | 9.7575 | 1400 | 965.39 | 1.0359 | 5680.3 | 9.7277 |
| 1169.3 | 0.855 22 | 5953.3 | 9.9478 | 1500 | 1091.3 | 0.916 30 | 5953.2 | 9.9159 | 1500 | 1023.2 | 0.977 37 | 5953.2 | 9.8861 |
| 1235.3 | 0.809 53 | 6230.5 | 10.100 | 1600 | 1152.9 | 0.867 34 | 6230.5 | 10.068 | 1600 | 1080.9 | 0.925 15 | 6230.5 | 10.038 |
| 1367.2 | 0.731 40 | 6796.9 | 10.387 | 1800 | 1276.1 | 0.783 63 | 6796.8 | 10.355 | 1800 | 1196.4 | 0.835 85 | 6796.8 | 10.325 |
| 1499.2 | 0.667 03 | 7376.8 | 10.654 | 2000 | 1399.3 | 0.714 66 | 7376.8 | 10.622 | 2000 | 1311.8 | 0.762 29 | 7376.8 | 10.592 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.9 MPa ($t_s = 175.350\text{ }^{\circ}\text{C}$) | | | | | 1.0 MPa ($t_s = 179.878\text{ }^{\circ}\text{C}$) | | | | | 1.1 MPa ($t_s = 184.062\text{ }^{\circ}\text{C}$) | | | | |
|---|---------|--------|-----------|-----------------------|---|---------|--------|-----------|-----------------------|---|---------|--------|-----------|-----------------------|
| v | ρ | h | s | $t, ^{\circ}\text{C}$ | v | ρ | h | s | $t, ^{\circ}\text{C}$ | v | ρ | h | s | $t, ^{\circ}\text{C}$ |
| 1.121 18 | 891.92 | 742.56 | 2.0940 | $t_s(\text{L})$ | 1.127 23 | 887.13 | 762.52 | 2.1381 | $t_s(\text{L})$ | 1.132 99 | 882.62 | 781.03 | 2.1785 | $t_s(\text{L})$ |
| 214.89 | 4.6536 | 2773.0 | 6.6213 | $t_s(\text{V})$ | 194.36 | 5.1450 | 2777.1 | 6.5850 | $t_s(\text{V})$ | 177.45 | 5.6354 | 2780.6 | 6.5520 | $t_s(\text{V})$ |
| 0.999 75 | 1000.25 | 0.87 | -0.000 09 | 0 | 0.999 70 | 1000.30 | 0.98 | -0.000 09 | 0 | 0.999 65 | 1000.35 | 1.08 | -0.000 08 | 0 |
| 0.999 64 | 1000.36 | 21.91 | 0.076 24 | 5 | 0.999 59 | 1000.41 | 22.01 | 0.076 24 | 5 | 0.999 54 | 1000.46 | 22.11 | 0.076 23 | 5 |
| 0.999 92 | 1000.08 | 42.90 | 0.151 01 | 10 | 0.999 87 | 1000.13 | 42.99 | 0.151 00 | 10 | 0.999 82 | 1000.18 | 43.09 | 0.150 99 | 10 |
| 1.000 53 | 999.48 | 63.84 | 0.224 33 | 15 | 1.000 48 | 999.52 | 63.94 | 0.224 31 | 15 | 1.000 43 | 999.57 | 64.03 | 0.224 30 | 15 |
| 1.001 43 | 998.57 | 84.76 | 0.296 30 | 20 | 1.001 38 | 998.62 | 84.85 | 0.296 28 | 20 | 1.001 34 | 998.66 | 84.95 | 0.296 26 | 20 |
| 1.002 60 | 997.41 | 105.66 | 0.366 99 | 25 | 1.002 55 | 997.45 | 105.75 | 0.366 97 | 25 | 1.002 51 | 997.50 | 105.84 | 0.366 94 | 25 |
| 1.004 01 | 996.01 | 126.55 | 0.436 48 | 30 | 1.003 97 | 996.05 | 126.64 | 0.436 45 | 30 | 1.003 92 | 996.09 | 126.73 | 0.436 42 | 30 |
| 1.005 65 | 994.39 | 147.44 | 0.504 82 | 35 | 1.005 60 | 994.43 | 147.53 | 0.504 78 | 35 | 1.005 56 | 994.47 | 147.62 | 0.504 75 | 35 |
| 1.007 49 | 992.57 | 168.32 | 0.572 05 | 40 | 1.007 44 | 992.61 | 168.41 | 0.572 02 | 40 | 1.007 40 | 992.65 | 168.50 | 0.571 98 | 40 |
| 1.009 53 | 990.56 | 189.21 | 0.638 23 | 45 | 1.009 48 | 990.61 | 189.30 | 0.638 19 | 45 | 1.009 44 | 990.65 | 189.39 | 0.638 15 | 45 |
| 1.011 75 | 988.38 | 210.11 | 0.703 40 | 50 | 1.011 71 | 988.43 | 210.19 | 0.703 35 | 50 | 1.011 66 | 988.47 | 210.28 | 0.703 30 | 50 |
| 1.014 16 | 986.04 | 231.01 | 0.767 58 | 55 | 1.014 11 | 986.09 | 231.09 | 0.767 53 | 55 | 1.014 07 | 986.13 | 231.18 | 0.767 48 | 55 |
| 1.016 73 | 983.54 | 251.92 | 0.830 82 | 60 | 1.016 69 | 983.59 | 252.00 | 0.830 77 | 60 | 1.016 64 | 983.63 | 252.09 | 0.830 72 | 60 |
| 1.019 47 | 980.90 | 272.84 | 0.893 16 | 65 | 1.019 43 | 980.95 | 272.92 | 0.893 10 | 65 | 1.019 38 | 980.99 | 273.01 | 0.893 05 | 65 |
| 1.022 37 | 978.12 | 293.78 | 0.954 61 | 70 | 1.022 33 | 978.16 | 293.86 | 0.954 55 | 70 | 1.022 28 | 978.21 | 293.94 | 0.954 49 | 70 |
| 1.025 43 | 975.20 | 314.72 | 1.0152 | 75 | 1.025 39 | 975.24 | 314.81 | 1.0152 | 75 | 1.025 34 | 975.29 | 314.89 | 1.0151 | 75 |
| 1.028 65 | 972.15 | 335.69 | 1.0750 | 80 | 1.028 60 | 972.19 | 335.77 | 1.0750 | 80 | 1.028 56 | 972.24 | 335.85 | 1.0749 | 80 |
| 1.032 02 | 968.97 | 356.68 | 1.1340 | 85 | 1.031 97 | 969.02 | 356.75 | 1.1340 | 85 | 1.031 92 | 969.06 | 356.83 | 1.1339 | 85 |
| 1.035 55 | 965.67 | 377.68 | 1.1923 | 90 | 1.035 50 | 965.72 | 377.76 | 1.1922 | 90 | 1.035 45 | 965.77 | 377.84 | 1.1921 | 90 |
| 1.039 22 | 962.26 | 398.71 | 1.2498 | 95 | 1.039 17 | 962.30 | 398.79 | 1.2497 | 95 | 1.039 12 | 962.35 | 398.86 | 1.2496 | 95 |
| 1.043 05 | 958.72 | 419.77 | 1.3066 | 100 | 1.043 00 | 958.77 | 419.84 | 1.3065 | 100 | 1.042 95 | 958.82 | 419.92 | 1.3064 | 100 |
| 1.047 04 | 955.08 | 440.85 | 1.3627 | 105 | 1.046 99 | 955.12 | 440.92 | 1.3626 | 105 | 1.046 93 | 955.17 | 441.00 | 1.3626 | 105 |
| 1.051 18 | 951.31 | 461.97 | 1.4182 | 110 | 1.051 12 | 951.36 | 462.04 | 1.4181 | 110 | 1.051 07 | 951.41 | 462.11 | 1.4180 | 110 |
| 1.055 47 | 947.44 | 483.12 | 1.4730 | 115 | 1.055 42 | 947.49 | 483.19 | 1.4729 | 115 | 1.055 37 | 947.54 | 483.26 | 1.4729 | 115 |
| 1.059 93 | 943.46 | 504.30 | 1.5273 | 120 | 1.059 87 | 943.51 | 504.38 | 1.5272 | 120 | 1.059 82 | 943.56 | 504.45 | 1.5271 | 120 |
| 1.064 55 | 939.36 | 525.53 | 1.5809 | 125 | 1.064 49 | 939.42 | 525.60 | 1.5808 | 125 | 1.064 43 | 939.47 | 525.67 | 1.5807 | 125 |
| 1.069 33 | 935.16 | 546.81 | 1.6340 | 130 | 1.069 27 | 935.21 | 546.88 | 1.6339 | 130 | 1.069 22 | 935.27 | 546.95 | 1.6338 | 130 |
| 1.074 29 | 930.85 | 568.13 | 1.6866 | 135 | 1.074 23 | 930.90 | 568.20 | 1.6865 | 135 | 1.074 17 | 930.96 | 568.27 | 1.6864 | 135 |
| 1.079 42 | 926.43 | 589.51 | 1.7387 | 140 | 1.079 35 | 926.48 | 589.58 | 1.7386 | 140 | 1.079 29 | 926.53 | 589.64 | 1.7384 | 140 |
| 1.084 72 | 921.89 | 610.94 | 1.7902 | 145 | 1.084 66 | 921.95 | 611.01 | 1.7901 | 145 | 1.084 59 | 922.00 | 611.07 | 1.7900 | 145 |
| 1.090 22 | 917.25 | 632.44 | 1.8413 | 150 | 1.090 15 | 917.31 | 632.50 | 1.8412 | 150 | 1.090 08 | 917.36 | 632.56 | 1.8411 | 150 |
| 1.095 90 | 912.49 | 654.00 | 1.8920 | 155 | 1.095 83 | 912.55 | 654.06 | 1.8919 | 155 | 1.095 76 | 912.61 | 654.12 | 1.8918 | 155 |
| 1.101 79 | 907.62 | 675.64 | 1.9422 | 160 | 1.101 71 | 907.68 | 675.70 | 1.9421 | 160 | 1.101 64 | 907.74 | 675.75 | 1.9420 | 160 |
| 1.107 88 | 902.63 | 697.35 | 1.9921 | 165 | 1.107 80 | 902.69 | 697.41 | 1.9919 | 165 | 1.107 73 | 902.75 | 697.46 | 1.9918 | 165 |
| 1.114 18 | 897.52 | 719.14 | 2.0415 | 170 | 1.114 10 | 897.58 | 719.20 | 2.0414 | 170 | 1.114 03 | 897.65 | 719.25 | 2.0413 | 170 |
| 1.120 72 | 892.29 | 741.02 | 2.0906 | 175 | 1.120 63 | 892.35 | 741.08 | 2.0905 | 175 | 1.120 55 | 892.42 | 741.13 | 2.0904 | 175 |
| 217.92 | 4.5888 | 2785.2 | 6.6482 | 180 | 194.44 | 5.1431 | 2777.4 | 6.5857 | 180 | 1.127 31 | 887.06 | 763.10 | 2.1391 | 180 |
| 221.12 | 4.5224 | 2797.8 | 6.6759 | 185 | 197.42 | 5.0653 | 2790.7 | 6.6148 | 185 | 177.97 | 5.6189 | 2783.2 | 6.5576 | 185 |
| 224.26 | 4.4590 | 2810.1 | 6.7027 | 190 | 200.34 | 4.9916 | 2803.5 | 6.6427 | 190 | 180.72 | 5.5336 | 2796.6 | 6.5868 | 190 |
| 227.36 | 4.3983 | 2822.2 | 6.7286 | 195 | 203.20 | 4.9212 | 2816.0 | 6.6695 | 195 | 183.40 | 5.4527 | 2809.6 | 6.6146 | 195 |
| 230.42 | 4.3399 | 2834.1 | 6.7539 | 200 | 206.02 | 4.8539 | 2828.3 | 6.6955 | 200 | 186.03 | 5.3755 | 2822.3 | 6.6415 | 200 |
| 236.44 | 4.2294 | 2857.4 | 6.8027 | 210 | 211.56 | 4.7268 | 2852.2 | 6.7456 | 210 | 191.18 | 5.2308 | 2846.8 | 6.6929 | 210 |
| 242.36 | 4.1262 | 2880.3 | 6.8495 | 220 | 216.98 | 4.6087 | 2875.5 | 6.7934 | 220 | 196.20 | 5.0968 | 2870.7 | 6.7417 | 220 |
| 248.18 | 4.0293 | 2902.7 | 6.8946 | 230 | 222.31 | 4.4983 | 2898.4 | 6.8393 | 230 | 201.13 | 4.9720 | 2894.0 | 6.7885 | 230 |
| 253.93 | 3.9380 | 2924.9 | 6.9382 | 240 | 227.56 | 4.3944 | 2920.9 | 6.8836 | 240 | 205.97 | 4.8551 | 2916.8 | 6.8335 | 240 |
| 259.62 | 3.8517 | 2946.8 | 6.9805 | 250 | 232.75 | 4.2965 | 2943.1 | 6.9265 | 250 | 210.75 | 4.7450 | 2939.4 | 6.8770 | 250 |
| 265.26 | 3.7699 | 2968.5 | 7.0216 | 260 | 237.88 | 4.2038 | 2965.1 | 6.9681 | 260 | 215.47 | 4.6411 | 2961.7 | 6.9192 | 260 |
| 270.85 | 3.6921 | 2990.1 | 7.0618 | 270 | 242.96 | 4.1159 | 2986.9 | 7.0087 | 270 | 220.14 | 4.5426 | 2983.7 | 6.9602 | 270 |
| 276.40 | 3.6179 | 3011.6 | 7.1009 | 280 | 248.01 | 4.0322 | 3008.6 | 7.0482 | 280 | 224.77 | 4.4490 | 3005.6 | 7.0001 | 280 |
| 281.92 | 3.5472 | 3033.0 | 7.1392 | 290 | 253.01 | 3.9524 | 3030.2 | 7.0868 | 290 | 229.36 | 4.3600 | 3027.4 | 7.0391 | 290 |

Table 3. Compressed Water and Superheated Steam (continued)

| 0.9 MPa ($t_s = 175.350\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 1.0 MPa ($t_s = 179.878\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 1.1 MPa ($t_s = 184.062\text{ }^{\circ}\text{C}$) | | | |
|---|----------|--------|--------|-----------------------|---|----------|--------|--------|-----------------------|---|--------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 287.40 | 3.4795 | 3054.3 | 7.1767 | 300 | 257.99 | 3.8762 | 3051.6 | 7.1246 | 300 | 233.92 | 4.2750 | 3049.0 | 7.0772 |
| 292.86 | 3.4146 | 3075.5 | 7.2134 | 310 | 262.94 | 3.8032 | 3073.0 | 7.1616 | 310 | 238.45 | 4.1937 | 3070.5 | 7.1144 |
| 298.29 | 3.3524 | 3096.7 | 7.2495 | 320 | 267.86 | 3.7333 | 3094.4 | 7.1979 | 320 | 242.96 | 4.1160 | 3092.0 | 7.1509 |
| 303.70 | 3.2927 | 3117.9 | 7.2849 | 330 | 272.76 | 3.6662 | 3115.7 | 7.2335 | 330 | 247.44 | 4.0414 | 3113.4 | 7.1868 |
| 309.09 | 3.2353 | 3139.0 | 7.3197 | 340 | 277.64 | 3.6018 | 3136.9 | 7.2685 | 340 | 251.90 | 3.9698 | 3134.8 | 7.2219 |
| 314.47 | 3.1800 | 3160.2 | 7.3539 | 350 | 282.50 | 3.5398 | 3158.2 | 7.3029 | 350 | 256.35 | 3.9009 | 3156.2 | 7.2565 |
| 319.83 | 3.1267 | 3181.3 | 7.3876 | 360 | 287.35 | 3.4801 | 3179.4 | 7.3367 | 360 | 260.78 | 3.8347 | 3177.5 | 7.2905 |
| 325.17 | 3.0753 | 3202.5 | 7.4207 | 370 | 292.18 | 3.4225 | 3200.7 | 7.3700 | 370 | 265.19 | 3.7709 | 3198.9 | 7.3239 |
| 330.50 | 3.0257 | 3223.7 | 7.4534 | 380 | 297.00 | 3.3670 | 3221.9 | 7.4028 | 380 | 269.59 | 3.7093 | 3220.2 | 7.3568 |
| 335.82 | 2.9778 | 3244.8 | 7.4856 | 390 | 301.81 | 3.3133 | 3243.2 | 7.4351 | 390 | 273.98 | 3.6499 | 3241.5 | 7.3892 |
| 341.13 | 2.9314 | 3266.1 | 7.5173 | 400 | 306.61 | 3.2615 | 3264.5 | 7.4669 | 400 | 278.36 | 3.5925 | 3262.9 | 7.4212 |
| 346.43 | 2.8866 | 3287.3 | 7.5486 | 410 | 311.39 | 3.2114 | 3285.8 | 7.4984 | 410 | 282.72 | 3.5370 | 3284.3 | 7.4527 |
| 351.72 | 2.8432 | 3308.6 | 7.5795 | 420 | 316.17 | 3.1629 | 3307.1 | 7.5294 | 420 | 287.08 | 3.4833 | 3305.6 | 7.4838 |
| 357.00 | 2.8011 | 3329.9 | 7.6101 | 430 | 320.94 | 3.1159 | 3328.5 | 7.5600 | 430 | 291.43 | 3.4314 | 3327.1 | 7.5145 |
| 362.27 | 2.7604 | 3351.2 | 7.6402 | 440 | 325.69 | 3.0704 | 3349.9 | 7.5902 | 440 | 295.77 | 3.3810 | 3348.5 | 7.5448 |
| 367.53 | 2.7208 | 3372.6 | 7.6700 | 450 | 330.45 | 3.0262 | 3371.3 | 7.6200 | 450 | 300.10 | 3.3322 | 3370.0 | 7.5747 |
| 372.79 | 2.6825 | 3394.0 | 7.6994 | 460 | 335.19 | 2.9834 | 3392.8 | 7.6495 | 460 | 304.43 | 3.2848 | 3391.5 | 7.6042 |
| 378.04 | 2.6452 | 3415.5 | 7.7285 | 470 | 339.93 | 2.9418 | 3414.3 | 7.6786 | 470 | 308.75 | 3.2389 | 3413.1 | 7.6335 |
| 383.29 | 2.6090 | 3437.0 | 7.7572 | 480 | 344.66 | 2.9014 | 3435.8 | 7.7075 | 480 | 313.06 | 3.1943 | 3434.7 | 7.6623 |
| 388.53 | 2.5738 | 3458.6 | 7.7857 | 490 | 349.39 | 2.8621 | 3457.4 | 7.7360 | 490 | 317.37 | 3.1509 | 3456.3 | 7.6909 |
| 393.76 | 2.5396 | 3480.2 | 7.8138 | 500 | 354.11 | 2.8240 | 3479.1 | 7.7641 | 500 | 321.67 | 3.1088 | 3478.0 | 7.7191 |
| 404.22 | 2.4739 | 3523.6 | 7.8692 | 520 | 363.54 | 2.7507 | 3522.6 | 7.8196 | 520 | 330.26 | 3.0279 | 3521.5 | 7.7747 |
| 414.65 | 2.4116 | 3567.2 | 7.9235 | 540 | 372.95 | 2.6813 | 3566.2 | 7.8740 | 540 | 338.84 | 2.9513 | 3565.3 | 7.8291 |
| 425.08 | 2.3525 | 3611.0 | 7.9768 | 560 | 382.35 | 2.6154 | 3610.1 | 7.9273 | 560 | 347.40 | 2.8786 | 3609.2 | 7.8825 |
| 435.49 | 2.2963 | 3655.1 | 8.0290 | 580 | 391.74 | 2.5527 | 3654.2 | 7.9796 | 580 | 355.94 | 2.8095 | 3653.4 | 7.9349 |
| 445.88 | 2.2427 | 3699.4 | 8.0803 | 600 | 401.11 | 2.4931 | 3698.6 | 8.0310 | 600 | 364.47 | 2.7437 | 3697.8 | 7.9864 |
| 456.27 | 2.1917 | 3743.9 | 8.1308 | 620 | 410.47 | 2.4362 | 3743.2 | 8.0815 | 620 | 373.00 | 2.6810 | 3742.4 | 8.0369 |
| 466.65 | 2.1429 | 3788.7 | 8.1804 | 640 | 419.82 | 2.3820 | 3788.0 | 8.1312 | 640 | 381.51 | 2.6212 | 3787.3 | 8.0866 |
| 477.02 | 2.0964 | 3833.8 | 8.2292 | 660 | 429.16 | 2.3301 | 3833.1 | 8.1800 | 660 | 390.01 | 2.5640 | 3832.5 | 8.1355 |
| 487.38 | 2.0518 | 3879.1 | 8.2773 | 680 | 438.50 | 2.2805 | 3878.5 | 8.2281 | 680 | 398.51 | 2.5094 | 3877.8 | 8.1836 |
| 497.73 | 2.0091 | 3924.7 | 8.3246 | 700 | 447.83 | 2.2330 | 3924.1 | 8.2755 | 700 | 407.00 | 2.4570 | 3923.5 | 8.2310 |
| 508.08 | 1.9682 | 3970.5 | 8.3712 | 720 | 457.15 | 2.1875 | 3970.0 | 8.3221 | 720 | 415.48 | 2.4069 | 3969.4 | 8.2777 |
| 518.42 | 1.9289 | 4016.6 | 8.4172 | 740 | 466.47 | 2.1438 | 4016.1 | 8.3681 | 740 | 423.96 | 2.3587 | 4015.6 | 8.3237 |
| 528.76 | 1.8912 | 4063.0 | 8.4625 | 760 | 475.78 | 2.1018 | 4062.5 | 8.4135 | 760 | 432.43 | 2.3125 | 4062.0 | 8.3691 |
| 539.09 | 1.8550 | 4109.6 | 8.5072 | 780 | 485.08 | 2.0615 | 4109.2 | 8.4582 | 780 | 440.90 | 2.2681 | 4108.7 | 8.4139 |
| 549.41 | 1.8201 | 4156.6 | 8.5514 | 800 | 494.38 | 2.0227 | 4156.1 | 8.5024 | 800 | 449.36 | 2.2254 | 4155.6 | 8.4581 |
| 559.74 | 1.7866 | 4203.7 | 8.5949 | 820 | 503.68 | 1.9854 | 4203.3 | 8.5460 | 820 | 457.81 | 2.1843 | 4202.9 | 8.5017 |
| 570.05 | 1.7542 | 4251.2 | 8.6379 | 840 | 512.97 | 1.9494 | 4250.8 | 8.5890 | 840 | 466.27 | 2.1447 | 4250.3 | 8.5447 |
| 580.37 | 1.7230 | 4298.9 | 8.6804 | 860 | 522.26 | 1.9147 | 4298.5 | 8.6315 | 860 | 474.72 | 2.1065 | 4298.1 | 8.5872 |
| 590.68 | 1.6930 | 4346.9 | 8.7224 | 880 | 531.55 | 1.8813 | 4346.5 | 8.6735 | 880 | 483.17 | 2.0697 | 4346.1 | 8.6292 |
| 600.99 | 1.6639 | 4395.1 | 8.7639 | 900 | 540.83 | 1.8490 | 4394.8 | 8.7150 | 900 | 491.61 | 2.0341 | 4394.4 | 8.6707 |
| 611.30 | 1.6359 | 4443.6 | 8.8049 | 920 | 550.11 | 1.8178 | 4443.3 | 8.7560 | 920 | 500.05 | 1.9998 | 4442.9 | 8.7117 |
| 621.60 | 1.6088 | 4492.4 | 8.8454 | 940 | 559.39 | 1.7877 | 4492.1 | 8.7965 | 940 | 508.49 | 1.9666 | 4491.7 | 8.7523 |
| 631.90 | 1.5825 | 4541.4 | 8.8855 | 960 | 568.67 | 1.7585 | 4541.1 | 8.8366 | 960 | 516.93 | 1.9345 | 4540.8 | 8.7924 |
| 642.20 | 1.5571 | 4590.7 | 8.9251 | 980 | 577.94 | 1.7303 | 4590.4 | 8.8763 | 980 | 525.36 | 1.9035 | 4590.1 | 8.8321 |
| 652.50 | 1.5326 | 4640.2 | 8.9643 | 1000 | 587.21 | 1.7030 | 4639.9 | 8.9155 | 1000 | 533.79 | 1.8734 | 4639.7 | 8.8713 |
| 703.95 | 1.4205 | 4891.7 | 9.1544 | 1100 | 633.54 | 1.5784 | 4891.4 | 9.1056 | 1100 | 575.93 | 1.7363 | 4891.2 | 9.0615 |
| 755.37 | 1.3238 | 5149.0 | 9.3353 | 1200 | 679.83 | 1.4710 | 5148.9 | 9.2866 | 1200 | 618.02 | 1.6181 | 5148.7 | 9.2425 |
| 806.77 | 1.2395 | 5412.0 | 9.5080 | 1300 | 726.10 | 1.3772 | 5411.9 | 9.4593 | 1300 | 660.09 | 1.5149 | 5411.7 | 9.4152 |
| 858.14 | 1.1653 | 5680.1 | 9.6732 | 1400 | 772.34 | 1.2948 | 5680.0 | 9.6245 | 1400 | 702.14 | 1.4242 | 5679.9 | 9.5805 |
| 909.50 | 1.0995 | 5953.1 | 9.8316 | 1500 | 818.57 | 1.2216 | 5953.0 | 9.7830 | 1500 | 744.17 | 1.3438 | 5952.9 | 9.7389 |
| 960.84 | 1.0408 | 6230.4 | 9.9838 | 1600 | 864.78 | 1.1564 | 6230.3 | 9.9351 | 1600 | 786.19 | 1.2719 | 6230.2 | 9.8911 |
| 1063.5 | 0.940 29 | 6796.8 | 10.271 | 1800 | 957.19 | 1.0447 | 6796.7 | 10.222 | 1800 | 870.21 | 1.1492 | 6796.7 | 10.178 |
| 1166.1 | 0.857 54 | 7376.8 | 10.538 | 2000 | 1049.6 | 0.952 78 | 7376.8 | 10.489 | 2000 | 954.19 | 1.0480 | 7376.7 | 10.445 |

Table 3. Compressed Water and Superheated Steam (continued)

| 1.2 MPa ($t_s = 187.957\text{ }^{\circ}\text{C}$) | | | | | 1.3 MPa ($t_s = 191.605\text{ }^{\circ}\text{C}$) | | | | | 1.4 MPa ($t_s = 195.039\text{ }^{\circ}\text{C}$) | | | | |
|---|---------|--------|-----------|-------------------------------|---|---------|--------|-----------|-------------------------------|---|---------|--------|-----------|-------------------------------|
| v | ρ | h | s | $t_s\text{ }^{\circ}\text{C}$ | v | ρ | h | s | $t_s\text{ }^{\circ}\text{C}$ | v | ρ | h | s | $t_s\text{ }^{\circ}\text{C}$ |
| 1.138 50 | 878.35 | 798.33 | 2.2159 | $t_s(\text{L})$ | 1.143 80 | 874.28 | 814.60 | 2.2508 | $t_s(\text{L})$ | 1.148 92 | 870.39 | 829.97 | 2.2835 | $t_s(\text{L})$ |
| 163.26 | 6.1251 | 2783.7 | 6.5217 | $t_s(\text{V})$ | 151.19 | 6.6144 | 2786.5 | 6.4936 | $t_s(\text{V})$ | 140.78 | 7.1034 | 2788.8 | 6.4675 | $t_s(\text{V})$ |
| 0.999 60 | 1000.40 | 1.18 | -0.000 08 | 0 | 0.999 55 | 1000.45 | 1.28 | -0.000 07 | 0 | 0.999 50 | 1000.50 | 1.38 | -0.000 06 | 0 |
| 0.999 49 | 1000.51 | 22.21 | 0.076 23 | 5 | 0.999 45 | 1000.56 | 22.31 | 0.076 23 | 5 | 0.999 40 | 1000.60 | 22.41 | 0.076 23 | 5 |
| 0.999 77 | 1000.23 | 43.19 | 0.150 98 | 10 | 0.999 73 | 1000.27 | 43.29 | 0.150 97 | 10 | 0.999 68 | 1000.32 | 43.38 | 0.150 96 | 10 |
| 1.000 39 | 999.62 | 64.13 | 0.224 28 | 15 | 1.000 34 | 999.66 | 64.22 | 0.224 27 | 15 | 1.000 29 | 999.71 | 64.32 | 0.224 25 | 15 |
| 1.001 29 | 998.71 | 85.04 | 0.296 23 | 20 | 1.001 25 | 998.76 | 85.13 | 0.296 21 | 20 | 1.001 20 | 998.80 | 85.23 | 0.296 19 | 20 |
| 1.002 46 | 997.54 | 105.94 | 0.366 92 | 25 | 1.002 42 | 997.59 | 106.03 | 0.366 89 | 25 | 1.002 37 | 997.63 | 106.12 | 0.366 86 | 25 |
| 1.003 88 | 996.14 | 126.82 | 0.436 39 | 30 | 1.003 83 | 996.18 | 126.92 | 0.436 36 | 30 | 1.003 79 | 996.23 | 127.01 | 0.436 33 | 30 |
| 1.005 51 | 994.52 | 147.71 | 0.504 71 | 35 | 1.005 47 | 994.56 | 147.80 | 0.504 68 | 35 | 1.005 42 | 994.61 | 147.89 | 0.504 64 | 35 |
| 1.007 36 | 992.70 | 168.59 | 0.571 94 | 40 | 1.007 31 | 992.74 | 168.68 | 0.571 90 | 40 | 1.007 27 | 992.79 | 168.77 | 0.571 86 | 40 |
| 1.009 39 | 990.69 | 189.48 | 0.638 11 | 45 | 1.009 35 | 990.74 | 189.56 | 0.638 06 | 45 | 1.009 31 | 990.78 | 189.65 | 0.638 02 | 45 |
| 1.011 62 | 988.51 | 210.37 | 0.703 26 | 50 | 1.011 57 | 988.56 | 210.45 | 0.703 21 | 50 | 1.011 53 | 988.60 | 210.54 | 0.703 17 | 50 |
| 1.014 02 | 986.17 | 231.26 | 0.767 43 | 55 | 1.013 98 | 986.22 | 231.35 | 0.767 38 | 55 | 1.013 93 | 986.26 | 231.43 | 0.767 33 | 55 |
| 1.016 60 | 983.68 | 252.17 | 0.830 67 | 60 | 1.016 55 | 983.72 | 252.26 | 0.830 61 | 60 | 1.016 50 | 983.76 | 252.34 | 0.830 56 | 60 |
| 1.019 33 | 981.03 | 273.09 | 0.892 99 | 65 | 1.019 29 | 981.08 | 273.17 | 0.892 93 | 65 | 1.019 24 | 981.12 | 273.26 | 0.892 88 | 65 |
| 1.022 23 | 978.25 | 294.02 | 0.954 44 | 70 | 1.022 19 | 978.29 | 294.10 | 0.954 38 | 70 | 1.022 14 | 978.34 | 294.18 | 0.954 32 | 70 |
| 1.025 29 | 975.33 | 314.97 | 1.0150 | 75 | 1.025 25 | 975.38 | 315.05 | 1.0150 | 75 | 1.025 20 | 975.42 | 315.13 | 1.0149 | 75 |
| 1.028 51 | 972.28 | 335.93 | 1.0748 | 80 | 1.028 46 | 972.33 | 336.01 | 1.0748 | 80 | 1.028 41 | 972.37 | 336.09 | 1.0747 | 80 |
| 1.031 88 | 969.11 | 356.91 | 1.1338 | 85 | 1.031 83 | 969.15 | 356.99 | 1.1337 | 85 | 1.031 78 | 969.20 | 357.07 | 1.1337 | 85 |
| 1.035 40 | 965.81 | 377.91 | 1.1921 | 90 | 1.035 35 | 965.86 | 377.99 | 1.1920 | 90 | 1.035 30 | 965.90 | 378.07 | 1.1919 | 90 |
| 1.039 07 | 962.40 | 398.94 | 1.2496 | 95 | 1.039 02 | 962.44 | 399.02 | 1.2495 | 95 | 1.038 97 | 962.49 | 399.09 | 1.2494 | 95 |
| 1.042 90 | 958.86 | 419.99 | 1.3064 | 100 | 1.042 85 | 958.91 | 420.07 | 1.3063 | 100 | 1.042 80 | 958.96 | 420.14 | 1.3062 | 100 |
| 1.046 88 | 955.22 | 441.07 | 1.3625 | 105 | 1.046 83 | 955.27 | 441.15 | 1.3624 | 105 | 1.046 78 | 955.31 | 441.22 | 1.3623 | 105 |
| 1.051 02 | 951.46 | 462.18 | 1.4179 | 110 | 1.050 96 | 951.51 | 462.26 | 1.4178 | 110 | 1.050 91 | 951.56 | 462.33 | 1.4178 | 110 |
| 1.055 31 | 947.59 | 483.33 | 1.4728 | 115 | 1.055 26 | 947.64 | 483.40 | 1.4727 | 115 | 1.055 20 | 947.69 | 483.47 | 1.4726 | 115 |
| 1.059 76 | 943.61 | 504.52 | 1.5270 | 120 | 1.059 71 | 943.66 | 504.59 | 1.5269 | 120 | 1.059 65 | 943.71 | 504.66 | 1.5268 | 120 |
| 1.064 38 | 939.52 | 525.74 | 1.5806 | 125 | 1.064 32 | 939.57 | 525.81 | 1.5806 | 125 | 1.064 26 | 939.62 | 525.88 | 1.5805 | 125 |
| 1.069 16 | 935.32 | 547.01 | 1.6337 | 130 | 1.069 10 | 935.37 | 547.08 | 1.6336 | 130 | 1.069 04 | 935.42 | 547.15 | 1.6335 | 130 |
| 1.074 10 | 931.01 | 568.33 | 1.6863 | 135 | 1.074 04 | 931.06 | 568.40 | 1.6862 | 135 | 1.073 98 | 931.11 | 568.47 | 1.6861 | 135 |
| 1.079 23 | 926.59 | 589.71 | 1.7383 | 140 | 1.079 16 | 926.64 | 589.77 | 1.7382 | 140 | 1.079 10 | 926.70 | 589.83 | 1.7381 | 140 |
| 1.084 53 | 922.06 | 611.13 | 1.7899 | 145 | 1.084 46 | 922.12 | 611.20 | 1.7898 | 145 | 1.084 40 | 922.17 | 611.26 | 1.7897 | 145 |
| 1.090 01 | 917.42 | 632.63 | 1.8410 | 150 | 1.089 95 | 917.48 | 632.69 | 1.8409 | 150 | 1.089 88 | 917.53 | 632.75 | 1.8408 | 150 |
| 1.095 69 | 912.67 | 654.18 | 1.8916 | 155 | 1.095 62 | 912.72 | 654.24 | 1.8915 | 155 | 1.095 55 | 912.78 | 654.30 | 1.8914 | 155 |
| 1.101 57 | 907.80 | 675.81 | 1.9419 | 160 | 1.101 50 | 907.86 | 675.87 | 1.9417 | 160 | 1.101 42 | 907.92 | 675.93 | 1.9416 | 160 |
| 1.107 65 | 902.81 | 697.52 | 1.9917 | 165 | 1.107 57 | 902.87 | 697.57 | 1.9916 | 165 | 1.107 50 | 902.93 | 697.63 | 1.9914 | 165 |
| 1.113 95 | 897.71 | 719.31 | 2.0411 | 170 | 1.113 87 | 897.77 | 719.36 | 2.0410 | 170 | 1.113 79 | 897.83 | 719.42 | 2.0409 | 170 |
| 1.120 47 | 892.48 | 741.18 | 2.0902 | 175 | 1.120 39 | 892.55 | 741.23 | 2.0901 | 175 | 1.120 31 | 892.61 | 741.29 | 2.0900 | 175 |
| 1.127 23 | 887.13 | 763.15 | 2.1390 | 180 | 1.127 14 | 887.20 | 763.20 | 2.1388 | 180 | 1.127 06 | 887.26 | 763.25 | 2.1387 | 180 |
| 1.134 24 | 881.65 | 785.23 | 2.1874 | 185 | 1.134 15 | 881.72 | 785.27 | 2.1873 | 185 | 1.134 06 | 881.79 | 785.32 | 2.1871 | 185 |
| 164.32 | 6.0857 | 2789.4 | 6.5340 | 190 | 1.141 41 | 876.11 | 807.45 | 2.2354 | 190 | 1.141 32 | 876.18 | 807.50 | 2.2353 | 190 |
| 166.86 | 5.9931 | 2803.0 | 6.5631 | 195 | 152.83 | 6.5434 | 2796.0 | 6.5141 | 195 | 1.148 86 | 870.43 | 829.79 | 2.2831 | 195 |
| 169.34 | 5.9053 | 2816.1 | 6.5909 | 200 | 155.19 | 6.4439 | 2809.6 | 6.5431 | 200 | 143.03 | 6.9918 | 2803.0 | 6.4975 | 200 |
| 174.17 | 5.7415 | 2841.3 | 6.6437 | 210 | 159.76 | 6.2595 | 2835.7 | 6.5975 | 210 | 147.38 | 6.7850 | 2829.9 | 6.5538 | 210 |
| 178.87 | 5.5908 | 2865.7 | 6.6937 | 220 | 164.18 | 6.0907 | 2860.7 | 6.6487 | 220 | 151.58 | 6.5970 | 2855.5 | 6.6062 | 220 |
| 183.46 | 5.4508 | 2889.5 | 6.7414 | 230 | 168.50 | 5.9347 | 2884.9 | 6.6973 | 230 | 155.66 | 6.4241 | 2880.2 | 6.6559 | 230 |
| 187.97 | 5.3200 | 2912.7 | 6.7872 | 240 | 172.73 | 5.7895 | 2908.5 | 6.7439 | 240 | 159.65 | 6.2637 | 2904.3 | 6.7033 | 240 |
| 192.41 | 5.1973 | 2935.6 | 6.8313 | 250 | 176.88 | 5.6536 | 2931.8 | 6.7887 | 250 | 163.56 | 6.1139 | 2927.9 | 6.7488 | 250 |
| 196.79 | 5.0817 | 2958.2 | 6.8740 | 260 | 180.97 | 5.5258 | 2954.6 | 6.8320 | 260 | 167.41 | 5.9735 | 2951.0 | 6.7926 | 260 |
| 201.11 | 4.9723 | 2980.5 | 6.9155 | 270 | 185.01 | 5.4051 | 2977.2 | 6.8739 | 270 | 171.20 | 5.8411 | 2973.8 | 6.8350 | 270 |
| 205.40 | 4.8686 | 3002.6 | 6.9558 | 280 | 189.00 | 5.2909 | 2999.5 | 6.9146 | 280 | 174.95 | 5.7160 | 2996.4 | 6.8762 | 280 |
| 209.64 | 4.7700 | 3024.5 | 6.9951 | 290 | 192.96 | 5.1825 | 3021.6 | 6.9543 | 290 | 178.65 | 5.5975 | 3018.8 | 6.9162 | 290 |

Table 3. Compressed Water and Superheated Steam (continued)

| 1.2 MPa ($t_s = 187.957\text{ }^\circ\text{C}$) | | | | $t, \text{ }^\circ\text{C}$ | 1.3 MPa ($t_s = 191.605\text{ }^\circ\text{C}$) | | | | $t, \text{ }^\circ\text{C}$ | 1.4 MPa ($t_s = 195.039\text{ }^\circ\text{C}$) | | | |
|---|--------|--------|--------|-----------------------------|---|--------|--------|--------|-----------------------------|---|--------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 213.86 | 4.6760 | 3046.3 | 7.0335 | 300 | 196.88 | 5.0792 | 3043.6 | 6.9930 | 300 | 182.32 | 5.4847 | 3040.9 | 6.9552 |
| 218.04 | 4.5363 | 3068.0 | 7.0710 | 310 | 200.77 | 4.9808 | 3065.5 | 7.0308 | 310 | 185.97 | 5.3773 | 3062.9 | 6.9933 |
| 222.20 | 4.5004 | 3089.6 | 7.1078 | 320 | 204.64 | 4.8867 | 3087.3 | 7.0678 | 320 | 189.58 | 5.2748 | 3084.9 | 7.0306 |
| 226.34 | 4.4182 | 3111.2 | 7.1438 | 330 | 208.48 | 4.7966 | 3108.9 | 7.1041 | 330 | 193.17 | 5.1767 | 3106.7 | 7.0671 |
| 230.45 | 4.3393 | 3132.7 | 7.1792 | 340 | 212.30 | 4.7103 | 3130.6 | 7.1396 | 340 | 196.74 | 5.0828 | 3128.4 | 7.1028 |
| 234.55 | 4.2635 | 3154.2 | 7.2139 | 350 | 216.10 | 4.6274 | 3152.1 | 7.1745 | 350 | 200.29 | 4.9927 | 3150.1 | 7.1379 |
| 238.63 | 4.1906 | 3175.6 | 7.2480 | 360 | 219.89 | 4.5477 | 3173.7 | 7.2088 | 360 | 203.83 | 4.9062 | 3171.7 | 7.1723 |
| 242.70 | 4.1204 | 3197.0 | 7.2816 | 370 | 223.66 | 4.4710 | 3195.2 | 7.2425 | 370 | 207.34 | 4.8229 | 3193.3 | 7.2062 |
| 246.75 | 4.0527 | 3218.4 | 7.3147 | 380 | 227.42 | 4.3972 | 3216.7 | 7.2757 | 380 | 210.85 | 4.7427 | 3214.9 | 7.2395 |
| 250.79 | 3.9874 | 3239.9 | 7.3472 | 390 | 231.16 | 4.3260 | 3238.2 | 7.3084 | 390 | 214.34 | 4.6655 | 3236.5 | 7.2723 |
| 254.82 | 3.9244 | 3261.3 | 7.3793 | 400 | 234.90 | 4.2572 | 3259.7 | 7.3406 | 400 | 217.82 | 4.5909 | 3258.1 | 7.3046 |
| 258.83 | 3.8635 | 3282.7 | 7.4109 | 410 | 238.62 | 4.1908 | 3281.2 | 7.3723 | 410 | 221.29 | 4.5190 | 3279.7 | 7.3364 |
| 262.84 | 3.8046 | 3304.2 | 7.4421 | 420 | 242.33 | 4.1266 | 3302.7 | 7.4036 | 420 | 224.75 | 4.4494 | 3301.2 | 7.3678 |
| 266.84 | 3.7475 | 3325.7 | 7.4728 | 430 | 246.04 | 4.0645 | 3324.3 | 7.4344 | 430 | 228.20 | 4.3821 | 3322.8 | 7.3987 |
| 270.83 | 3.6923 | 3347.2 | 7.5032 | 440 | 249.73 | 4.0043 | 3345.8 | 7.4649 | 440 | 231.64 | 4.3170 | 3344.5 | 7.4292 |
| 274.82 | 3.6388 | 3368.7 | 7.5332 | 450 | 253.42 | 3.9460 | 3367.4 | 7.4949 | 450 | 235.08 | 4.2539 | 3366.1 | 7.4594 |
| 278.79 | 3.5869 | 3390.3 | 7.5628 | 460 | 257.10 | 3.8895 | 3389.0 | 7.5246 | 460 | 238.51 | 4.1928 | 3387.8 | 7.4891 |
| 282.76 | 3.5365 | 3411.9 | 7.5921 | 470 | 260.77 | 3.8347 | 3410.7 | 7.5539 | 470 | 241.93 | 4.1335 | 3409.5 | 7.5185 |
| 286.73 | 3.4876 | 3433.5 | 7.6210 | 480 | 264.44 | 3.7815 | 3432.4 | 7.5829 | 480 | 245.34 | 4.0759 | 3431.2 | 7.5476 |
| 290.69 | 3.4401 | 3455.2 | 7.6496 | 490 | 268.11 | 3.7299 | 3454.1 | 7.6116 | 490 | 248.75 | 4.0201 | 3453.0 | 7.5763 |
| 294.64 | 3.3940 | 3476.9 | 7.6779 | 500 | 271.76 | 3.6797 | 3475.9 | 7.6399 | 500 | 252.16 | 3.9658 | 3474.8 | 7.6047 |
| 302.53 | 3.3055 | 3520.5 | 7.7336 | 520 | 279.06 | 3.5834 | 3519.5 | 7.6957 | 520 | 258.95 | 3.8617 | 3518.5 | 7.6605 |
| 310.41 | 3.2216 | 3564.3 | 7.7881 | 540 | 286.35 | 3.4923 | 3563.4 | 7.7503 | 540 | 265.73 | 3.7633 | 3562.4 | 7.7152 |
| 318.26 | 3.1420 | 3608.3 | 7.8416 | 560 | 293.62 | 3.4058 | 3607.5 | 7.8038 | 560 | 272.49 | 3.6699 | 3606.6 | 7.7688 |
| 326.11 | 3.0664 | 3652.6 | 7.8940 | 580 | 300.87 | 3.3237 | 3651.7 | 7.8563 | 580 | 279.23 | 3.5812 | 3650.9 | 7.8214 |
| 333.94 | 2.9945 | 3697.0 | 7.9455 | 600 | 308.11 | 3.2456 | 3696.2 | 7.9079 | 600 | 285.97 | 3.4969 | 3695.4 | 7.8730 |
| 341.77 | 2.9260 | 3741.7 | 7.9961 | 620 | 315.34 | 3.1711 | 3741.0 | 7.9586 | 620 | 292.69 | 3.4165 | 3740.2 | 7.9237 |
| 349.58 | 2.8606 | 3786.6 | 8.0459 | 640 | 322.57 | 3.1001 | 3785.9 | 8.0083 | 640 | 299.41 | 3.3399 | 3785.2 | 7.9736 |
| 357.39 | 2.7981 | 3831.8 | 8.0948 | 660 | 329.78 | 3.0323 | 3831.1 | 8.0573 | 660 | 306.12 | 3.2667 | 3830.5 | 8.0226 |
| 365.18 | 2.7384 | 3877.2 | 8.1430 | 680 | 336.98 | 2.9675 | 3876.6 | 8.1055 | 680 | 312.81 | 3.1968 | 3876.0 | 8.0708 |
| 372.97 | 2.6812 | 3922.9 | 8.1904 | 700 | 344.18 | 2.9054 | 3922.3 | 8.1530 | 700 | 319.51 | 3.1298 | 3921.7 | 8.1183 |
| 380.76 | 2.6264 | 3968.8 | 8.2371 | 720 | 351.37 | 2.8460 | 3968.3 | 8.1997 | 720 | 326.19 | 3.0657 | 3967.7 | 8.1651 |
| 388.53 | 2.5738 | 4015.0 | 8.2832 | 740 | 358.56 | 2.7889 | 4014.5 | 8.2458 | 740 | 332.87 | 3.0042 | 4014.0 | 8.2112 |
| 396.31 | 2.5233 | 4061.5 | 8.3286 | 760 | 365.74 | 2.7342 | 4061.0 | 8.2912 | 760 | 339.54 | 2.9451 | 4060.5 | 8.2567 |
| 404.07 | 2.4748 | 4108.2 | 8.3734 | 780 | 372.92 | 2.6816 | 4107.7 | 8.3361 | 780 | 346.21 | 2.8884 | 4107.2 | 8.3015 |
| 411.84 | 2.4282 | 4155.2 | 8.4176 | 800 | 380.09 | 2.6310 | 4154.7 | 8.3803 | 800 | 352.87 | 2.8339 | 4154.3 | 8.3457 |
| 419.59 | 2.3833 | 4202.4 | 8.4612 | 820 | 387.25 | 2.5823 | 4202.0 | 8.4239 | 820 | 359.53 | 2.7814 | 4201.6 | 8.3894 |
| 427.35 | 2.3400 | 4249.9 | 8.5042 | 840 | 394.42 | 2.5354 | 4249.5 | 8.4670 | 840 | 366.19 | 2.7308 | 4249.1 | 8.4325 |
| 435.10 | 2.2983 | 4297.7 | 8.5468 | 860 | 401.58 | 2.4902 | 4297.3 | 8.5095 | 860 | 372.84 | 2.6821 | 4296.9 | 8.4751 |
| 442.85 | 2.2581 | 4345.7 | 8.5888 | 880 | 408.73 | 2.4466 | 4345.4 | 8.5516 | 880 | 379.49 | 2.6351 | 4345.0 | 8.5171 |
| 450.59 | 2.2193 | 4394.0 | 8.6303 | 900 | 415.89 | 2.4045 | 4393.7 | 8.5931 | 900 | 386.14 | 2.5898 | 4393.3 | 8.5587 |
| 458.34 | 2.1818 | 4442.6 | 8.6713 | 920 | 423.04 | 2.3639 | 4442.2 | 8.6342 | 920 | 392.78 | 2.5459 | 4441.9 | 8.5997 |
| 466.08 | 2.1456 | 4491.4 | 8.7119 | 940 | 430.18 | 2.3246 | 4491.1 | 8.6747 | 940 | 399.42 | 2.5036 | 4490.7 | 8.6403 |
| 473.81 | 2.1105 | 4540.5 | 8.7520 | 960 | 437.33 | 2.2866 | 4540.1 | 8.7149 | 960 | 406.06 | 2.4627 | 4539.8 | 8.6805 |
| 481.55 | 2.0766 | 4589.8 | 8.7917 | 980 | 444.47 | 2.2499 | 4589.5 | 8.7546 | 980 | 412.70 | 2.4231 | 4589.2 | 8.7202 |
| 489.28 | 2.0438 | 4639.4 | 8.8310 | 1000 | 451.61 | 2.2143 | 4639.1 | 8.7938 | 1000 | 419.33 | 2.3848 | 4638.8 | 8.7594 |
| 527.92 | 1.8942 | 4891.0 | 9.0212 | 1100 | 487.29 | 2.0522 | 4890.7 | 8.9841 | 1100 | 452.47 | 2.2101 | 4890.5 | 8.9497 |
| 566.52 | 1.7652 | 5148.5 | 9.2022 | 1200 | 522.93 | 1.9123 | 5148.3 | 9.1651 | 1200 | 485.58 | 2.0594 | 5148.1 | 9.1308 |
| 605.09 | 1.6526 | 5411.5 | 9.3749 | 1300 | 558.55 | 1.7904 | 5411.4 | 9.3379 | 1300 | 518.66 | 1.9281 | 5411.2 | 9.3036 |
| 643.64 | 1.5537 | 5679.8 | 9.5402 | 1400 | 594.14 | 1.6831 | 5679.6 | 9.5032 | 1400 | 551.72 | 1.8125 | 5679.5 | 9.4689 |
| 682.18 | 1.4659 | 5952.8 | 9.6987 | 1500 | 629.72 | 1.5880 | 5952.7 | 9.6617 | 1500 | 584.76 | 1.7101 | 5952.6 | 9.6274 |
| 720.70 | 1.3875 | 6230.1 | 9.8508 | 1600 | 665.29 | 1.5031 | 6230.0 | 9.8138 | 1600 | 617.79 | 1.6187 | 6230.0 | 9.7796 |
| 797.72 | 1.2536 | 6796.6 | 10.138 | 1800 | 736.39 | 1.3580 | 6796.6 | 10.101 | 1800 | 683.82 | 1.4624 | 6796.5 | 10.067 |
| 874.71 | 1.1432 | 7376.7 | 10.405 | 2000 | 807.46 | 1.2384 | 7376.7 | 10.368 | 2000 | 749.82 | 1.3336 | 7376.7 | 10.334 |

Table 3. Compressed Water and Superheated Steam (continued)

| 1.5 MPa ($t_s = 198.287\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 1.6 MPa ($t_s = 201.370\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 1.8 MPa ($t_s = 207.112\text{ }^{\circ}\text{C}$) | | | |
|---|---------|--------|-----------|-------------------------|---|---------|--------|-----------|-------------------------|---|---------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.153 87 | 866.65 | 844.56 | 2.3143 | $t_s(\text{L})$ | 1.158 68 | 863.05 | 858.46 | 2.3435 | $t_s(\text{L})$ | 1.167 92 | 856.22 | 884.47 | 2.3975 |
| 131.71 | 7.5924 | 2791.0 | 6.4430 | $t_s(\text{V})$ | 123.74 | 8.0815 | 2792.8 | 6.4199 | $t_s(\text{V})$ | 110.37 | 9.0606 | 2795.9 | 6.3775 |
| 0.999 45 | 1000.55 | 1.48 | -0.000 06 | 0 | 0.999 40 | 1000.60 | 1.59 | -0.000 05 | 0 | 0.999 29 | 1000.71 | 1.79 | -0.000 04 |
| 0.999 35 | 1000.65 | 22.51 | 0.076 23 | 5 | 0.999 30 | 1000.70 | 22.61 | 0.076 22 | 5 | 0.999 20 | 1000.80 | 22.81 | 0.076 22 |
| 0.999 63 | 1000.37 | 43.48 | 0.150 95 | 10 | 0.999 58 | 1000.42 | 43.58 | 0.150 94 | 10 | 0.999 49 | 1000.51 | 43.77 | 0.150 92 |
| 1.000 25 | 999.75 | 64.41 | 0.224 24 | 15 | 1.000 20 | 999.80 | 64.51 | 0.224 22 | 15 | 1.000 11 | 999.89 | 64.70 | 0.224 19 |
| 1.001 15 | 998.85 | 85.32 | 0.296 17 | 20 | 1.001 11 | 998.89 | 85.42 | 0.296 15 | 20 | 1.001 02 | 998.98 | 85.60 | 0.296 11 |
| 1.002 33 | 997.68 | 106.21 | 0.366 84 | 25 | 1.002 28 | 997.72 | 106.31 | 0.366 81 | 25 | 1.002 19 | 997.81 | 106.49 | 0.366 76 |
| 1.003 74 | 996.27 | 127.10 | 0.436 30 | 30 | 1.003 70 | 996.32 | 127.19 | 0.436 27 | 30 | 1.003 61 | 996.41 | 127.37 | 0.436 21 |
| 1.005 38 | 994.65 | 147.98 | 0.504 61 | 35 | 1.005 33 | 994.69 | 148.07 | 0.504 58 | 35 | 1.005 25 | 994.78 | 148.25 | 0.504 51 |
| 1.007 22 | 992.83 | 168.86 | 0.571 82 | 40 | 1.007 18 | 992.87 | 168.94 | 0.571 78 | 40 | 1.007 09 | 992.96 | 169.12 | 0.571 71 |
| 1.009 26 | 990.82 | 189.74 | 0.637 98 | 45 | 1.009 22 | 990.87 | 189.82 | 0.637 94 | 45 | 1.009 13 | 990.95 | 190.00 | 0.637 85 |
| 1.011 49 | 988.64 | 210.62 | 0.703 12 | 50 | 1.011 44 | 988.69 | 210.71 | 0.703 07 | 50 | 1.011 35 | 988.78 | 210.88 | 0.702 98 |
| 1.013 89 | 986.30 | 231.52 | 0.767 28 | 55 | 1.013 84 | 986.35 | 231.60 | 0.767 23 | 55 | 1.013 75 | 986.43 | 231.77 | 0.767 13 |
| 1.016 46 | 983.81 | 252.42 | 0.830 51 | 60 | 1.016 41 | 983.85 | 252.51 | 0.830 45 | 60 | 1.016 32 | 983.94 | 252.67 | 0.830 35 |
| 1.019 20 | 981.16 | 273.34 | 0.892 82 | 65 | 1.019 15 | 981.21 | 273.42 | 0.892 76 | 65 | 1.019 06 | 981.30 | 273.59 | 0.892 65 |
| 1.022 10 | 978.38 | 294.27 | 0.954 26 | 70 | 1.022 05 | 978.43 | 294.35 | 0.954 20 | 70 | 1.021 96 | 978.51 | 294.51 | 0.954 08 |
| 1.025 15 | 975.46 | 315.21 | 1.0148 | 75 | 1.025 11 | 975.51 | 315.29 | 1.0148 | 75 | 1.025 01 | 975.60 | 315.45 | 1.0147 |
| 1.028 37 | 972.42 | 336.17 | 1.0746 | 80 | 1.028 32 | 972.46 | 336.25 | 1.0746 | 80 | 1.028 22 | 972.55 | 336.41 | 1.0744 |
| 1.031 73 | 969.24 | 357.15 | 1.1336 | 85 | 1.031 68 | 969.29 | 357.23 | 1.1335 | 85 | 1.031 59 | 969.38 | 357.38 | 1.1334 |
| 1.035 25 | 965.95 | 378.15 | 1.1918 | 90 | 1.035 20 | 965.99 | 378.22 | 1.1918 | 90 | 1.035 10 | 966.09 | 378.38 | 1.1916 |
| 1.038 92 | 962.53 | 399.17 | 1.2493 | 95 | 1.038 87 | 962.58 | 399.24 | 1.2493 | 95 | 1.038 77 | 962.67 | 399.40 | 1.2491 |
| 1.042 75 | 959.00 | 420.22 | 1.3061 | 100 | 1.042 70 | 959.05 | 420.29 | 1.3060 | 100 | 1.042 60 | 959.15 | 420.44 | 1.3059 |
| 1.046 73 | 955.36 | 441.29 | 1.3622 | 105 | 1.046 67 | 955.41 | 441.37 | 1.3621 | 105 | 1.046 57 | 955.50 | 441.52 | 1.3620 |
| 1.050 86 | 951.60 | 462.40 | 1.4177 | 110 | 1.050 80 | 951.65 | 462.48 | 1.4176 | 110 | 1.050 70 | 951.75 | 462.62 | 1.4174 |
| 1.055 15 | 947.74 | 483.55 | 1.4725 | 115 | 1.055 09 | 947.78 | 483.62 | 1.4724 | 115 | 1.054 98 | 947.88 | 483.76 | 1.4722 |
| 1.059 59 | 943.76 | 504.73 | 1.5267 | 120 | 1.059 54 | 943.81 | 504.80 | 1.5266 | 120 | 1.059 43 | 943.91 | 504.94 | 1.5265 |
| 1.064 20 | 939.67 | 525.95 | 1.5804 | 125 | 1.064 15 | 939.72 | 526.02 | 1.5803 | 125 | 1.064 03 | 939.82 | 526.16 | 1.5801 |
| 1.068 98 | 935.47 | 547.22 | 1.6334 | 130 | 1.068 92 | 935.52 | 547.28 | 1.6334 | 130 | 1.068 80 | 935.63 | 547.42 | 1.6332 |
| 1.073 92 | 931.17 | 568.53 | 1.6860 | 135 | 1.073 86 | 931.22 | 568.60 | 1.6859 | 135 | 1.073 74 | 931.33 | 568.73 | 1.6857 |
| 1.079 04 | 926.75 | 589.90 | 1.7380 | 140 | 1.078 98 | 926.81 | 589.96 | 1.7379 | 140 | 1.078 85 | 926.91 | 590.09 | 1.7377 |
| 1.084 33 | 922.23 | 611.33 | 1.7896 | 145 | 1.084 27 | 922.28 | 611.39 | 1.7895 | 145 | 1.084 14 | 922.39 | 611.52 | 1.7893 |
| 1.089 81 | 917.59 | 632.81 | 1.8407 | 150 | 1.089 75 | 917.65 | 632.87 | 1.8405 | 150 | 1.089 61 | 917.76 | 633.00 | 1.8403 |
| 1.095 48 | 912.84 | 654.36 | 1.8913 | 155 | 1.095 41 | 912.90 | 654.42 | 1.8912 | 155 | 1.095 27 | 913.01 | 654.54 | 1.8909 |
| 1.101 35 | 907.98 | 675.99 | 1.9415 | 160 | 1.101 28 | 908.04 | 676.05 | 1.9414 | 160 | 1.101 13 | 908.15 | 676.16 | 1.9411 |
| 1.107 42 | 903.00 | 697.69 | 1.9913 | 165 | 1.107 35 | 903.06 | 697.74 | 1.9912 | 165 | 1.107 20 | 903.18 | 697.86 | 1.9909 |
| 1.113 71 | 897.90 | 719.47 | 2.0407 | 170 | 1.113 64 | 897.96 | 719.52 | 2.0406 | 170 | 1.113 48 | 898.09 | 719.63 | 2.0404 |
| 1.120 23 | 892.68 | 741.34 | 2.0898 | 175 | 1.120 14 | 892.74 | 741.39 | 2.0897 | 175 | 1.119 98 | 892.87 | 741.50 | 2.0894 |
| 1.126 97 | 887.33 | 763.30 | 2.1386 | 180 | 1.126 89 | 887.40 | 763.35 | 2.1384 | 180 | 1.126 72 | 887.53 | 763.46 | 2.1382 |
| 1.133 97 | 881.86 | 785.37 | 2.1870 | 185 | 1.133 88 | 881.93 | 785.42 | 2.1868 | 185 | 1.133 70 | 882.06 | 785.51 | 2.1866 |
| 1.141 23 | 876.25 | 807.54 | 2.2351 | 190 | 1.141 13 | 876.32 | 807.59 | 2.2350 | 190 | 1.140 95 | 876.46 | 807.68 | 2.2347 |
| 1.148 76 | 870.50 | 829.83 | 2.2830 | 195 | 1.148 66 | 870.58 | 829.88 | 2.2828 | 195 | 1.148 47 | 870.73 | 829.96 | 2.2825 |
| 132.45 | 7.5498 | 2796.0 | 6.4536 | 200 | 1.156 48 | 864.69 | 852.29 | 2.3305 | 200 | 1.156 28 | 864.85 | 852.37 | 2.3301 |
| 136.64 | 7.3185 | 2823.9 | 6.5120 | 210 | 127.22 | 7.8605 | 2817.7 | 6.4720 | 210 | 111.45 | 8.9726 | 2804.7 | 6.3958 |
| 140.65 | 7.1100 | 2850.2 | 6.5659 | 220 | 131.06 | 7.6299 | 2844.8 | 6.5274 | 220 | 115.05 | 8.6921 | 2833.5 | 6.4548 |
| 144.53 | 6.9191 | 2875.5 | 6.6166 | 230 | 134.77 | 7.4199 | 2870.6 | 6.5792 | 230 | 118.48 | 8.4402 | 2860.6 | 6.5092 |
| 148.31 | 6.7427 | 2900.0 | 6.6649 | 240 | 138.38 | 7.2267 | 2895.6 | 6.6284 | 240 | 121.80 | 8.2104 | 2886.6 | 6.5602 |
| 152.01 | 6.5785 | 2923.9 | 6.7111 | 250 | 141.90 | 7.0473 | 2919.9 | 6.6753 | 250 | 125.02 | 7.9986 | 2911.7 | 6.6087 |
| 155.65 | 6.4248 | 2947.4 | 6.7555 | 260 | 145.35 | 6.8799 | 2943.7 | 6.7204 | 260 | 128.17 | 7.8019 | 2936.2 | 6.6551 |
| 159.23 | 6.2804 | 2970.5 | 6.7984 | 270 | 148.75 | 6.7229 | 2967.1 | 6.7638 | 270 | 131.26 | 7.6183 | 2960.1 | 6.6996 |
| 162.76 | 6.1441 | 2993.3 | 6.8400 | 280 | 152.09 | 6.5750 | 2990.1 | 6.8059 | 280 | 134.30 | 7.4460 | 2983.7 | 6.7426 |
| 166.25 | 6.0150 | 3015.8 | 6.8804 | 290 | 155.39 | 6.4352 | 3012.9 | 6.8467 | 290 | 137.29 | 7.2837 | 3006.9 | 6.7842 |

Table 3. Compressed Water and Superheated Steam (continued)

| 1.5 MPa ($t_s = 198.287\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 1.6 MPa ($t_s = 201.370\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 1.8 MPa ($t_s = 207.112\text{ }^{\circ}\text{C}$) | | | |
|---|--------|--------|--------|-----------------------|---|--------|--------|--------|-----------------------|---|--------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 169.71 | 5.8925 | 3038.2 | 6.9198 | 300 | 158.66 | 6.3027 | 3035.4 | 6.8863 | 300 | 140.25 | 7.1302 | 3029.9 | 6.8246 |
| 173.13 | 5.7760 | 3060.4 | 6.9582 | 310 | 161.90 | 6.1767 | 3057.8 | 6.9250 | 310 | 143.17 | 6.9847 | 3052.6 | 6.8639 |
| 176.53 | 5.6648 | 3082.4 | 6.9957 | 320 | 165.11 | 6.0567 | 3080.0 | 6.9628 | 320 | 146.06 | 6.8464 | 3075.1 | 6.9022 |
| 179.90 | 5.5586 | 3104.4 | 7.0324 | 330 | 168.29 | 5.9421 | 3102.1 | 6.9997 | 330 | 148.93 | 6.7146 | 3097.5 | 6.9396 |
| 183.25 | 5.4569 | 3126.2 | 7.0683 | 340 | 171.45 | 5.8326 | 3124.1 | 7.0359 | 340 | 151.77 | 6.5887 | 3119.7 | 6.9761 |
| 186.59 | 5.3594 | 3148.0 | 7.1036 | 350 | 174.59 | 5.7276 | 3146.0 | 7.0713 | 350 | 154.60 | 6.4683 | 3141.8 | 7.0120 |
| 189.90 | 5.2659 | 3169.8 | 7.1382 | 360 | 177.72 | 5.6269 | 3167.8 | 7.1061 | 360 | 157.41 | 6.3530 | 3163.9 | 7.0471 |
| 193.20 | 5.1759 | 3191.5 | 7.1722 | 370 | 180.83 | 5.5302 | 3189.6 | 7.1403 | 370 | 160.20 | 6.2423 | 3185.9 | 7.0815 |
| 196.49 | 5.0894 | 3213.2 | 7.2057 | 380 | 183.92 | 5.4371 | 3211.4 | 7.1738 | 380 | 162.97 | 6.1360 | 3207.8 | 7.1154 |
| 199.76 | 5.0060 | 3234.8 | 7.2386 | 390 | 187.00 | 5.3476 | 3233.1 | 7.2069 | 390 | 165.73 | 6.0337 | 3229.7 | 7.1487 |
| 203.02 | 4.9256 | 3256.5 | 7.2710 | 400 | 190.07 | 5.2612 | 3254.9 | 7.2394 | 400 | 168.49 | 5.9352 | 3251.6 | 7.1814 |
| 206.27 | 4.8480 | 3278.1 | 7.3029 | 410 | 193.13 | 5.1779 | 3276.6 | 7.2714 | 410 | 171.22 | 5.8403 | 3273.5 | 7.2136 |
| 209.51 | 4.7730 | 3299.8 | 7.3343 | 420 | 196.18 | 5.0974 | 3298.3 | 7.3030 | 420 | 173.95 | 5.7486 | 3295.3 | 7.2454 |
| 212.74 | 4.7005 | 3321.4 | 7.3654 | 430 | 199.22 | 5.0196 | 3320.0 | 7.3341 | 430 | 176.67 | 5.6601 | 3317.2 | 7.2767 |
| 215.97 | 4.6303 | 3343.1 | 7.3960 | 440 | 202.25 | 4.9444 | 3341.7 | 7.3648 | 440 | 179.39 | 5.5746 | 3339.0 | 7.3075 |
| 219.18 | 4.5624 | 3364.8 | 7.4262 | 450 | 205.27 | 4.8716 | 3363.5 | 7.3950 | 450 | 182.09 | 5.4918 | 3360.9 | 7.3380 |
| 222.39 | 4.4966 | 3386.5 | 7.4560 | 460 | 208.29 | 4.8010 | 3385.3 | 7.4249 | 460 | 184.79 | 5.4116 | 3382.7 | 7.3680 |
| 225.59 | 4.4328 | 3408.3 | 7.4855 | 470 | 211.30 | 4.7326 | 3407.0 | 7.4545 | 470 | 187.48 | 5.3340 | 3404.6 | 7.3976 |
| 228.79 | 4.3709 | 3430.0 | 7.5146 | 480 | 214.30 | 4.6663 | 3428.9 | 7.4836 | 480 | 190.16 | 5.2587 | 3426.5 | 7.4269 |
| 231.98 | 4.3107 | 3451.8 | 7.5433 | 490 | 217.30 | 4.6019 | 3450.7 | 7.5124 | 490 | 192.84 | 5.1857 | 3448.5 | 7.4559 |
| 235.16 | 4.2524 | 3473.7 | 7.5718 | 500 | 220.29 | 4.5394 | 3472.6 | 7.5409 | 500 | 195.51 | 5.1148 | 3470.4 | 7.4845 |
| 241.52 | 4.1405 | 3517.5 | 7.6277 | 520 | 226.26 | 4.4196 | 3516.5 | 7.5970 | 520 | 200.84 | 4.9791 | 3514.5 | 7.5407 |
| 247.85 | 4.0346 | 3561.5 | 7.6825 | 540 | 232.22 | 4.3063 | 3560.6 | 7.6518 | 540 | 206.15 | 4.8508 | 3558.7 | 7.5957 |
| 254.18 | 3.9343 | 3605.7 | 7.7362 | 560 | 238.15 | 4.1990 | 3604.8 | 7.7056 | 560 | 211.45 | 4.7293 | 3603.0 | 7.6496 |
| 260.48 | 3.8390 | 3650.1 | 7.7888 | 580 | 244.08 | 4.0971 | 3649.2 | 7.7583 | 580 | 216.73 | 4.6140 | 3647.6 | 7.7025 |
| 266.78 | 3.7484 | 3694.7 | 7.8405 | 600 | 249.99 | 4.0002 | 3693.9 | 7.8100 | 600 | 222.00 | 4.5044 | 3692.3 | 7.7543 |
| 273.07 | 3.6621 | 3739.5 | 7.8912 | 620 | 255.89 | 3.9079 | 3738.7 | 7.8608 | 620 | 227.26 | 4.4002 | 3737.3 | 7.8052 |
| 279.34 | 3.5799 | 3784.5 | 7.9411 | 640 | 261.78 | 3.8200 | 3783.8 | 7.9108 | 640 | 232.51 | 4.3008 | 3782.4 | 7.8552 |
| 285.61 | 3.5013 | 3829.8 | 7.9902 | 660 | 267.66 | 3.7360 | 3829.2 | 7.9599 | 660 | 237.75 | 4.2060 | 3827.8 | 7.9044 |
| 291.87 | 3.4262 | 3875.4 | 8.0385 | 680 | 273.54 | 3.6558 | 3874.7 | 8.0082 | 680 | 242.99 | 4.1154 | 3873.5 | 7.9528 |
| 298.12 | 3.3544 | 3921.1 | 8.0860 | 700 | 279.40 | 3.5790 | 3920.5 | 8.0557 | 700 | 248.21 | 4.0288 | 3919.4 | 8.0004 |
| 304.36 | 3.2856 | 3967.2 | 8.1328 | 720 | 285.26 | 3.5055 | 3966.6 | 8.1026 | 720 | 253.43 | 3.9458 | 3965.5 | 8.0473 |
| 310.60 | 3.2196 | 4013.4 | 8.1789 | 740 | 291.12 | 3.4350 | 4012.9 | 8.1487 | 740 | 258.65 | 3.8663 | 4011.8 | 8.0936 |
| 316.84 | 3.1562 | 4060.0 | 8.2244 | 760 | 296.97 | 3.3674 | 4059.5 | 8.1943 | 760 | 263.86 | 3.7899 | 4058.4 | 8.1391 |
| 323.06 | 3.0954 | 4106.8 | 8.2693 | 780 | 302.81 | 3.3024 | 4106.3 | 8.2391 | 780 | 269.06 | 3.7167 | 4105.3 | 8.1840 |
| 329.29 | 3.0368 | 4153.8 | 8.3135 | 800 | 308.65 | 3.2399 | 4153.3 | 8.2834 | 800 | 274.26 | 3.6462 | 4152.4 | 8.2284 |
| 335.51 | 2.9805 | 4201.1 | 8.3572 | 820 | 314.49 | 3.1798 | 4200.7 | 8.3271 | 820 | 279.45 | 3.5784 | 4199.8 | 8.2721 |
| 341.73 | 2.9263 | 4248.7 | 8.4003 | 840 | 320.32 | 3.1219 | 4248.3 | 8.3702 | 840 | 284.64 | 3.5132 | 4247.4 | 8.3153 |
| 347.94 | 2.8741 | 4296.5 | 8.4429 | 860 | 326.15 | 3.0661 | 4296.1 | 8.4128 | 860 | 289.83 | 3.4503 | 4295.3 | 8.3579 |
| 354.15 | 2.8237 | 4344.6 | 8.4850 | 880 | 331.97 | 3.0123 | 4344.2 | 8.4549 | 880 | 295.02 | 3.3897 | 4343.5 | 8.4000 |
| 360.36 | 2.7750 | 4392.9 | 8.5266 | 900 | 337.80 | 2.9604 | 4392.6 | 8.4965 | 900 | 300.20 | 3.3312 | 4391.9 | 8.4416 |
| 366.56 | 2.7281 | 4441.5 | 8.5676 | 920 | 343.61 | 2.9102 | 4441.2 | 8.5376 | 920 | 305.37 | 3.2747 | 4440.5 | 8.4828 |
| 372.76 | 2.6827 | 4490.4 | 8.6082 | 940 | 349.43 | 2.8618 | 4490.1 | 8.5782 | 940 | 310.55 | 3.2201 | 4489.4 | 8.5234 |
| 378.96 | 2.6388 | 4539.5 | 8.6484 | 960 | 355.25 | 2.8150 | 4539.2 | 8.6184 | 960 | 315.72 | 3.1673 | 4538.6 | 8.5636 |
| 385.16 | 2.5964 | 4588.9 | 8.6881 | 980 | 361.06 | 2.7696 | 4588.6 | 8.6581 | 980 | 320.89 | 3.1163 | 4588.0 | 8.6033 |
| 391.35 | 2.5553 | 4638.5 | 8.7274 | 1000 | 366.87 | 2.7258 | 4638.2 | 8.6974 | 1000 | 326.06 | 3.0669 | 4637.6 | 8.6426 |
| 422.29 | 2.3680 | 4890.3 | 8.9177 | 1100 | 395.89 | 2.5260 | 4890.0 | 8.8878 | 1100 | 351.88 | 2.8419 | 4889.5 | 8.8331 |
| 453.20 | 2.2065 | 5147.9 | 9.0988 | 1200 | 424.87 | 2.3536 | 5147.7 | 9.0689 | 1200 | 377.66 | 2.6479 | 5147.3 | 9.0143 |
| 484.08 | 2.0658 | 5411.1 | 9.2716 | 1300 | 453.83 | 2.2035 | 5410.9 | 9.2417 | 1300 | 403.41 | 2.4789 | 5410.6 | 9.1872 |
| 514.94 | 1.9420 | 5679.4 | 9.4370 | 1400 | 482.77 | 2.0714 | 5679.3 | 9.4071 | 1400 | 429.15 | 2.3302 | 5679.0 | 9.3526 |
| 545.79 | 1.8322 | 5952.5 | 9.5955 | 1500 | 511.69 | 1.9543 | 5952.4 | 9.5656 | 1500 | 454.86 | 2.1985 | 5952.1 | 9.5111 |
| 576.62 | 1.7342 | 6229.9 | 9.7477 | 1600 | 540.60 | 1.8498 | 6229.8 | 9.7178 | 1600 | 480.57 | 2.0809 | 6229.6 | 9.6634 |
| 638.26 | 1.5668 | 6796.5 | 10.035 | 1800 | 598.39 | 1.6712 | 6796.4 | 10.005 | 1800 | 531.95 | 1.8799 | 6796.3 | 9.9507 |
| 699.86 | 1.4288 | 7376.6 | 10.302 | 2000 | 656.15 | 1.5240 | 7376.6 | 10.272 | 2000 | 583.30 | 1.7144 | 7376.6 | 10.218 |

Table 3. Compressed Water and Superheated Steam (continued)

| 2.0 MPa ($t_s = 212.377\text{ }^{\circ}\text{C}$) | | | | | $t, ^{\circ}\text{C}$ | 2.2 MPa ($t_s = 217.249\text{ }^{\circ}\text{C}$) | | | | | $t, ^{\circ}\text{C}$ | 2.5 MPa ($t_s = 223.950\text{ }^{\circ}\text{C}$) | | | | |
|---|---------|--------|-----------|-----|-----------------------|---|---------|--------|-----------|-----|-----------------------|---|---------|--------|----------|--|
| v | ρ | h | s | | | v | ρ | h | s | | | v | ρ | h | s | |
| 1.176 75 | 849.80 | 908.50 | 2.4468 | | $t_s(\text{L})$ | 1.185 23 | 843.72 | 930.87 | 2.4921 | | $t_s(\text{L})$ | 1.197 43 | 835.12 | 961.91 | 2.5543 | |
| 99.585 | 10.042 | 2798.3 | 6.3390 | | $t_s(\text{V})$ | 90.698 | 11.026 | 2800.1 | 6.3038 | | $t_s(\text{V})$ | 79.949 | 12.508 | 2801.9 | 6.2558 | |
| 0.999 19 | 1000.81 | 1.99 | -0.000 03 | 0 | | 0.999 09 | 1000.91 | 2.20 | -0.000 01 | 0 | | 0.998 94 | 1001.06 | 2.50 | 0.000 00 | |
| 0.999 10 | 1000.90 | 23.01 | 0.076 22 | 5 | | 0.999 00 | 1001.00 | 23.21 | 0.076 21 | 5 | | 0.998 86 | 1001.14 | 23.50 | 0.076 21 | |
| 0.999 39 | 1000.61 | 43.97 | 0.150 91 | 10 | | 0.999 30 | 1000.70 | 44.16 | 0.150 89 | 10 | | 0.999 15 | 1000.85 | 44.46 | 0.150 86 | |
| 1.000 01 | 999.99 | 64.89 | 0.224 16 | 15 | | 0.999 92 | 1000.08 | 65.08 | 0.224 13 | 15 | | 0.999 78 | 1000.22 | 65.37 | 0.224 08 | |
| 1.000 93 | 999.08 | 85.79 | 0.296 07 | 20 | | 1.000 83 | 999.17 | 85.98 | 0.296 03 | 20 | | 1.000 70 | 999.30 | 86.26 | 0.295 96 | |
| 1.002 10 | 997.90 | 106.68 | 0.366 71 | 25 | | 1.002 01 | 997.99 | 106.86 | 0.366 66 | 25 | | 1.001 88 | 998.13 | 107.14 | 0.366 58 | |
| 1.003 52 | 996.49 | 127.55 | 0.436 15 | 30 | | 1.003 43 | 996.58 | 127.74 | 0.436 08 | 30 | | 1.003 29 | 996.72 | 128.01 | 0.435 99 | |
| 1.005 16 | 994.87 | 148.43 | 0.504 44 | 35 | | 1.005 07 | 994.96 | 148.60 | 0.504 37 | 35 | | 1.004 93 | 995.09 | 148.87 | 0.504 26 | |
| 1.007 00 | 993.05 | 169.30 | 0.571 63 | 40 | | 1.006 91 | 993.14 | 169.48 | 0.571 55 | 40 | | 1.006 78 | 993.27 | 169.74 | 0.571 43 | |
| 1.009 04 | 991.04 | 190.17 | 0.637 76 | 45 | | 1.008 95 | 991.13 | 190.35 | 0.637 68 | 45 | | 1.008 82 | 991.26 | 190.61 | 0.637 55 | |
| 1.011 26 | 988.86 | 211.06 | 0.702 89 | 50 | | 1.011 17 | 988.95 | 211.23 | 0.702 80 | 50 | | 1.011 04 | 989.08 | 211.49 | 0.702 66 | |
| 1.013 66 | 986.52 | 231.94 | 0.767 04 | 55 | | 1.013 57 | 986.61 | 232.11 | 0.766 94 | 55 | | 1.013 44 | 986.74 | 232.37 | 0.766 79 | |
| 1.016 23 | 984.02 | 252.84 | 0.830 24 | 60 | | 1.016 14 | 984.11 | 253.01 | 0.830 13 | 60 | | 1.016 01 | 984.24 | 253.26 | 0.829 98 | |
| 1.018 97 | 981.38 | 273.75 | 0.892 54 | 65 | | 1.018 88 | 981.47 | 273.92 | 0.892 43 | 65 | | 1.018 74 | 981.60 | 274.17 | 0.892 26 | |
| 1.021 87 | 978.60 | 294.68 | 0.953 96 | 70 | | 1.021 77 | 978.69 | 294.84 | 0.953 84 | 70 | | 1.021 64 | 978.82 | 295.08 | 0.953 66 | |
| 1.024 92 | 975.69 | 315.61 | 1.0145 | 75 | | 1.024 83 | 975.77 | 315.77 | 1.0144 | 75 | | 1.024 69 | 975.91 | 316.02 | 1.0142 | |
| 1.028 13 | 972.64 | 336.57 | 1.0743 | 80 | | 1.028 04 | 972.73 | 336.73 | 1.0742 | 80 | | 1.027 89 | 972.86 | 336.96 | 1.0740 | |
| 1.031 49 | 969.47 | 357.54 | 1.1333 | 85 | | 1.031 40 | 969.56 | 357.70 | 1.1331 | 85 | | 1.031 25 | 969.69 | 357.93 | 1.1329 | |
| 1.035 01 | 966.18 | 378.53 | 1.1915 | 90 | | 1.034 91 | 966.27 | 378.69 | 1.1913 | 90 | | 1.034 76 | 966.40 | 378.92 | 1.1911 | |
| 1.038 67 | 962.77 | 399.55 | 1.2490 | 95 | | 1.038 57 | 962.86 | 399.70 | 1.2488 | 95 | | 1.038 43 | 963.00 | 399.93 | 1.2486 | |
| 1.042 49 | 959.24 | 420.59 | 1.3057 | 100 | | 1.042 39 | 959.33 | 420.74 | 1.3056 | 100 | | 1.042 24 | 959.47 | 420.97 | 1.3053 | |
| 1.046 47 | 955.60 | 441.66 | 1.3618 | 105 | | 1.046 36 | 955.69 | 441.81 | 1.3617 | 105 | | 1.046 21 | 955.83 | 442.03 | 1.3614 | |
| 1.050 59 | 951.84 | 462.77 | 1.4173 | 110 | | 1.050 49 | 951.94 | 462.91 | 1.4171 | 110 | | 1.050 33 | 952.08 | 463.13 | 1.4168 | |
| 1.054 87 | 947.98 | 483.90 | 1.4721 | 115 | | 1.054 77 | 948.08 | 484.05 | 1.4719 | 115 | | 1.054 60 | 948.22 | 484.26 | 1.4716 | |
| 1.059 31 | 944.01 | 505.08 | 1.5263 | 120 | | 1.059 20 | 944.11 | 505.22 | 1.5261 | 120 | | 1.059 04 | 944.26 | 505.43 | 1.5258 | |
| 1.063 92 | 939.92 | 526.29 | 1.5799 | 125 | | 1.063 80 | 940.02 | 526.43 | 1.5797 | 125 | | 1.063 63 | 940.18 | 526.64 | 1.5794 | |
| 1.068 68 | 935.73 | 547.55 | 1.6330 | 130 | | 1.068 56 | 935.84 | 547.69 | 1.6328 | 130 | | 1.068 39 | 935.99 | 547.89 | 1.6325 | |
| 1.073 62 | 931.43 | 568.86 | 1.6855 | 135 | | 1.073 49 | 931.54 | 569.00 | 1.6853 | 135 | | 1.073 31 | 931.70 | 569.20 | 1.6850 | |
| 1.078 72 | 927.02 | 590.22 | 1.7375 | 140 | | 1.078 60 | 927.13 | 590.35 | 1.7373 | 140 | | 1.078 41 | 927.29 | 590.55 | 1.7370 | |
| 1.084 01 | 922.50 | 611.64 | 1.7890 | 145 | | 1.083 88 | 922.61 | 611.77 | 1.7888 | 145 | | 1.083 68 | 922.78 | 611.96 | 1.7885 | |
| 1.089 48 | 917.87 | 633.12 | 1.8401 | 150 | | 1.089 34 | 917.98 | 633.24 | 1.8399 | 150 | | 1.089 14 | 918.15 | 633.43 | 1.8395 | |
| 1.095 13 | 913.13 | 654.67 | 1.8907 | 155 | | 1.095 00 | 913.25 | 654.79 | 1.8905 | 155 | | 1.094 79 | 913.42 | 654.97 | 1.8901 | |
| 1.100 99 | 908.27 | 676.28 | 1.9409 | 160 | | 1.100 85 | 908.39 | 676.40 | 1.9407 | 160 | | 1.100 63 | 908.57 | 676.57 | 1.9403 | |
| 1.107 05 | 903.30 | 697.97 | 1.9907 | 165 | | 1.106 90 | 903.42 | 698.08 | 1.9905 | 165 | | 1.106 68 | 903.61 | 698.25 | 1.9901 | |
| 1.113 32 | 898.21 | 719.74 | 2.0401 | 170 | | 1.113 17 | 898.34 | 719.85 | 2.0399 | 170 | | 1.112 93 | 898.53 | 720.02 | 2.0395 | |
| 1.119 82 | 893.00 | 741.60 | 2.0892 | 175 | | 1.119 66 | 893.13 | 741.71 | 2.0889 | 175 | | 1.119 42 | 893.32 | 741.87 | 2.0885 | |
| 1.126 55 | 887.67 | 763.56 | 2.1379 | 180 | | 1.126 38 | 887.80 | 763.66 | 2.1376 | 180 | | 1.126 13 | 888.00 | 763.81 | 2.1372 | |
| 1.133 53 | 882.20 | 785.61 | 2.1863 | 185 | | 1.133 35 | 882.34 | 785.71 | 2.1860 | 185 | | 1.133 09 | 882.54 | 785.85 | 2.1856 | |
| 1.140 76 | 876.61 | 807.77 | 2.2344 | 190 | | 1.140 58 | 876.75 | 807.86 | 2.2341 | 190 | | 1.140 30 | 876.96 | 808.00 | 2.2337 | |
| 1.148 27 | 870.87 | 830.05 | 2.2822 | 195 | | 1.148 08 | 871.02 | 830.14 | 2.2819 | 195 | | 1.147 79 | 871.24 | 830.27 | 2.2815 | |
| 1.156 07 | 865.00 | 852.45 | 2.3298 | 200 | | 1.155 87 | 865.15 | 852.53 | 2.3295 | 200 | | 1.155 56 | 865.38 | 852.65 | 2.3290 | |
| 1.172 62 | 852.79 | 897.66 | 2.4244 | 210 | | 1.172 39 | 852.96 | 897.73 | 2.4240 | 210 | | 1.172 05 | 853.20 | 897.83 | 2.4235 | |
| 102.18 | 9.7870 | 2821.6 | 6.3867 | 220 | | 91.585 | 10.919 | 2809.0 | 6.3218 | 220 | | 1.189 94 | 840.38 | 943.63 | 2.5173 | |
| 105.41 | 9.4871 | 2850.2 | 6.4440 | 230 | | 94.667 | 10.563 | 2839.2 | 6.3826 | 230 | | 81.702 | 12.240 | 2821.8 | 6.2955 | |
| 108.50 | 9.2165 | 2877.2 | 6.4973 | 240 | | 97.592 | 10.247 | 2867.5 | 6.4383 | 240 | | 84.445 | 11.842 | 2852.3 | 6.3555 | |
| 111.50 | 8.9689 | 2903.2 | 6.5475 | 250 | | 100.41 | 9.9596 | 2894.5 | 6.4903 | 250 | | 87.053 | 11.487 | 2880.9 | 6.4107 | |
| 114.41 | 8.7404 | 2928.5 | 6.5952 | 260 | | 103.13 | 9.6964 | 2920.5 | 6.5396 | 260 | | 89.562 | 11.165 | 2908.2 | 6.4625 | |
| 117.26 | 8.5281 | 2953.1 | 6.6409 | 270 | | 105.79 | 9.4530 | 2945.8 | 6.5866 | 270 | | 91.992 | 10.871 | 2934.6 | 6.5114 | |
| 120.05 | 8.3296 | 2977.1 | 6.6849 | 280 | | 108.38 | 9.2265 | 2970.5 | 6.6316 | 280 | | 94.358 | 10.598 | 2960.1 | 6.5581 | |
| 122.80 | 8.1433 | 3000.8 | 6.7273 | 290 | | 110.93 | 9.0146 | 2994.6 | 6.6749 | 290 | | 96.670 | 10.344 | 2985.1 | 6.6028 | |

Table 3. Compressed Water and Superheated Steam (continued)

| 2.0 MPa ($t_s = 212.377\text{ }^\circ\text{C}$) | | | | | $t, ^\circ\text{C}$ | 2.2 MPa ($t_s = 217.249\text{ }^\circ\text{C}$) | | | | | $t, ^\circ\text{C}$ | 2.5 MPa ($t_s = 223.950\text{ }^\circ\text{C}$) | | | | |
|---|--------|--------|--------|--|---------------------|---|--------|--------|--------|--|---------------------|---|--------|--------|--------|--|
| v | ρ | h | s | | | v | ρ | h | s | | | v | ρ | h | s | |
| 125.51 | 7.9677 | 3024.2 | 6.7684 | | 300 | 113.44 | 8.8155 | 3018.4 | 6.7167 | | 300 | 98.937 | 10.107 | 3009.6 | 6.6459 | |
| 128.18 | 7.8016 | 3047.3 | 6.8083 | | 310 | 115.91 | 8.6277 | 3041.9 | 6.7573 | | 310 | 101.17 | 9.8848 | 3033.6 | 6.6875 | |
| 130.82 | 7.6440 | 3070.1 | 6.8472 | | 320 | 118.34 | 8.4500 | 3065.1 | 6.7967 | | 320 | 103.36 | 9.6749 | 3057.4 | 6.7278 | |
| 133.44 | 7.4942 | 3092.8 | 6.8851 | | 330 | 120.75 | 8.2813 | 3088.0 | 6.8351 | | 330 | 105.53 | 9.4763 | 3080.8 | 6.7670 | |
| 136.03 | 7.3514 | 3115.3 | 6.9221 | | 340 | 123.14 | 8.1208 | 3110.8 | 6.8726 | | 340 | 107.67 | 9.2879 | 3104.0 | 6.8052 | |
| 138.60 | 7.2150 | 3137.7 | 6.9583 | | 350 | 125.51 | 7.9678 | 3133.4 | 6.9092 | | 350 | 109.79 | 9.1087 | 3127.0 | 6.8424 | |
| 141.15 | 7.0845 | 3159.9 | 6.9937 | | 360 | 127.85 | 7.8215 | 3155.9 | 6.9450 | | 360 | 111.88 | 8.9378 | 3149.8 | 6.8788 | |
| 143.69 | 6.9594 | 3182.1 | 7.0285 | | 370 | 130.18 | 7.6816 | 3178.3 | 6.9801 | | 370 | 113.97 | 8.7746 | 3172.5 | 6.9143 | |
| 146.21 | 6.8394 | 3204.2 | 7.0627 | | 380 | 132.49 | 7.5475 | 3200.6 | 7.0145 | | 380 | 116.03 | 8.6184 | 3195.1 | 6.9492 | |
| 148.72 | 6.7241 | 3226.3 | 7.0962 | | 390 | 134.79 | 7.4187 | 3222.9 | 7.0483 | | 390 | 118.08 | 8.4687 | 3217.7 | 6.9834 | |
| 151.21 | 6.6131 | 3248.3 | 7.1292 | | 400 | 137.08 | 7.2949 | 3245.1 | 7.0815 | | 400 | 120.12 | 8.3251 | 3240.1 | 7.0170 | |
| 153.70 | 6.5062 | 3270.3 | 7.1616 | | 410 | 139.36 | 7.1758 | 3267.2 | 7.1142 | | 410 | 122.15 | 8.1870 | 3262.5 | 7.0500 | |
| 156.17 | 6.4031 | 3292.3 | 7.1935 | | 420 | 141.62 | 7.0610 | 3289.3 | 7.1463 | | 420 | 124.16 | 8.0541 | 3284.8 | 7.0824 | |
| 158.64 | 6.3037 | 3314.3 | 7.2250 | | 430 | 143.88 | 6.9503 | 3311.4 | 7.1780 | | 430 | 126.17 | 7.9260 | 3307.1 | 7.1143 | |
| 161.09 | 6.2075 | 3336.3 | 7.2560 | | 440 | 146.13 | 6.8434 | 3333.5 | 7.2091 | | 440 | 128.16 | 7.8025 | 3329.3 | 7.1458 | |
| 163.54 | 6.1146 | 3358.2 | 7.2866 | | 450 | 148.37 | 6.7401 | 3355.6 | 7.2399 | | 450 | 130.15 | 7.6833 | 3351.6 | 7.1767 | |
| 165.98 | 6.0247 | 3380.2 | 7.3168 | | 460 | 150.60 | 6.6402 | 3377.6 | 7.2702 | | 460 | 132.13 | 7.5681 | 3373.8 | 7.2073 | |
| 168.42 | 5.9376 | 3402.2 | 7.3466 | | 470 | 152.82 | 6.5435 | 3399.7 | 7.3001 | | 470 | 134.11 | 7.4567 | 3396.0 | 7.2374 | |
| 170.85 | 5.8533 | 3424.2 | 7.3760 | | 480 | 155.04 | 6.4499 | 3421.8 | 7.3296 | | 480 | 136.07 | 7.3489 | 3418.3 | 7.2671 | |
| 173.27 | 5.7714 | 3446.2 | 7.4050 | | 490 | 157.25 | 6.3592 | 3443.9 | 7.3588 | | 490 | 138.04 | 7.2445 | 3440.5 | 7.2964 | |
| 175.68 | 5.6921 | 3468.2 | 7.4337 | | 500 | 159.46 | 6.2711 | 3466.0 | 7.3876 | | 500 | 139.99 | 7.1433 | 3462.7 | 7.3254 | |
| 180.50 | 5.5401 | 3512.4 | 7.4901 | | 520 | 163.86 | 6.1028 | 3510.4 | 7.4442 | | 520 | 143.89 | 6.9498 | 3507.3 | 7.3823 | |
| 185.30 | 5.3966 | 3556.7 | 7.5453 | | 540 | 168.24 | 5.9439 | 3554.8 | 7.4996 | | 540 | 147.77 | 6.7674 | 3552.0 | 7.4379 | |
| 190.09 | 5.2608 | 3601.2 | 7.5994 | | 560 | 172.61 | 5.7935 | 3599.4 | 7.5538 | | 560 | 151.63 | 6.5950 | 3596.8 | 7.4923 | |
| 194.86 | 5.1320 | 3645.9 | 7.6523 | | 580 | 176.96 | 5.6511 | 3644.2 | 7.6069 | | 580 | 155.48 | 6.4318 | 3641.7 | 7.5456 | |
| 199.61 | 5.0097 | 3690.7 | 7.7043 | | 600 | 181.30 | 5.5158 | 3689.2 | 7.6589 | | 600 | 159.31 | 6.2769 | 3686.8 | 7.5979 | |
| 204.36 | 4.8933 | 3735.8 | 7.7553 | | 620 | 185.62 | 5.3872 | 3734.3 | 7.7100 | | 620 | 163.14 | 6.1297 | 3732.1 | 7.6491 | |
| 209.10 | 4.7824 | 3781.0 | 7.8054 | | 640 | 189.94 | 5.2648 | 3779.6 | 7.7603 | | 640 | 166.95 | 5.9897 | 3777.5 | 7.6995 | |
| 213.83 | 4.6767 | 3826.5 | 7.8547 | | 660 | 194.25 | 5.1480 | 3825.2 | 7.8096 | | 660 | 170.76 | 5.8562 | 3823.2 | 7.7490 | |
| 218.55 | 4.5756 | 3872.2 | 7.9032 | | 680 | 198.55 | 5.0364 | 3871.0 | 7.8581 | | 680 | 174.56 | 5.7288 | 3869.1 | 7.7976 | |
| 223.26 | 4.4790 | 3918.2 | 7.9509 | | 700 | 202.85 | 4.9298 | 3917.0 | 7.9059 | | 700 | 178.35 | 5.6070 | 3915.2 | 7.8455 | |
| 227.97 | 4.3866 | 3964.3 | 7.9978 | | 720 | 207.13 | 4.8278 | 3963.2 | 7.9529 | | 720 | 182.13 | 5.4905 | 3961.5 | 7.8926 | |
| 232.67 | 4.2979 | 4010.8 | 8.0441 | | 740 | 211.42 | 4.7300 | 4009.7 | 7.9993 | | 740 | 185.91 | 5.3789 | 4008.1 | 7.9390 | |
| 237.37 | 4.2129 | 4057.4 | 8.0897 | | 760 | 215.69 | 4.6362 | 4056.4 | 8.0449 | | 760 | 189.68 | 5.2719 | 4054.9 | 7.9848 | |
| 242.06 | 4.1313 | 4104.3 | 8.1347 | | 780 | 219.96 | 4.5462 | 4103.4 | 8.0900 | | 780 | 193.45 | 5.1693 | 4101.9 | 8.0299 | |
| 246.74 | 4.0528 | 4151.5 | 8.1790 | | 800 | 224.23 | 4.4597 | 4150.6 | 8.1344 | | 800 | 197.21 | 5.0706 | 4149.2 | 8.0743 | |
| 251.42 | 3.9773 | 4198.9 | 8.2228 | | 820 | 228.49 | 4.3765 | 4198.1 | 8.1782 | | 820 | 200.97 | 4.9758 | 4196.7 | 8.1182 | |
| 256.10 | 3.9047 | 4246.6 | 8.2660 | | 840 | 232.75 | 4.2964 | 4245.8 | 8.2214 | | 840 | 204.73 | 4.8845 | 4244.5 | 8.1615 | |
| 260.78 | 3.8347 | 4294.5 | 8.3087 | | 860 | 237.01 | 4.2193 | 4293.7 | 8.2641 | | 860 | 208.48 | 4.7966 | 4292.5 | 8.2043 | |
| 265.45 | 3.7672 | 4342.7 | 8.3509 | | 880 | 241.26 | 4.1449 | 4341.9 | 8.3063 | | 880 | 212.23 | 4.7119 | 4340.8 | 8.2465 | |
| 270.12 | 3.7021 | 4391.1 | 8.3925 | | 900 | 245.51 | 4.0732 | 4390.4 | 8.3480 | | 900 | 215.97 | 4.6302 | 4389.3 | 8.2882 | |
| 274.78 | 3.6392 | 4439.8 | 8.4336 | | 920 | 249.75 | 4.0040 | 4439.1 | 8.3892 | | 920 | 219.72 | 4.5513 | 4438.1 | 8.3294 | |
| 279.44 | 3.5785 | 4488.7 | 8.4743 | | 940 | 254.00 | 3.9371 | 4488.1 | 8.4299 | | 940 | 223.46 | 4.4752 | 4487.1 | 8.3702 | |
| 284.11 | 3.5198 | 4537.9 | 8.5145 | | 960 | 258.24 | 3.8724 | 4537.3 | 8.4701 | | 960 | 227.19 | 4.4015 | 4536.3 | 8.4104 | |
| 288.76 | 3.4630 | 4587.4 | 8.5543 | | 980 | 262.47 | 3.8099 | 4586.8 | 8.5099 | | 980 | 230.93 | 4.3303 | 4585.8 | 8.4503 | |
| 293.42 | 3.4081 | 4637.0 | 8.5936 | | 1000 | 266.71 | 3.7494 | 4636.5 | 8.5492 | | 1000 | 234.66 | 4.2615 | 4635.6 | 8.4896 | |
| 316.67 | 3.1578 | 4889.1 | 8.7842 | | 1100 | 287.87 | 3.4738 | 4888.6 | 8.7399 | | 1100 | 253.30 | 3.9479 | 4887.9 | 8.6804 | |
| 339.89 | 2.9421 | 5147.0 | 8.9654 | | 1200 | 308.98 | 3.2364 | 5146.6 | 8.9212 | | 1200 | 271.90 | 3.6778 | 5146.0 | 8.8618 | |
| 363.08 | 2.7542 | 5410.3 | 9.1384 | | 1300 | 330.08 | 3.0296 | 5410.0 | 9.0942 | | 1300 | 290.47 | 3.4426 | 5409.5 | 9.0349 | |
| 386.25 | 2.5890 | 5678.8 | 9.3038 | | 1400 | 351.15 | 2.8478 | 5678.5 | 9.2596 | | 1400 | 309.03 | 3.2360 | 5678.1 | 9.2004 | |
| 409.40 | 2.4426 | 5951.9 | 9.4624 | | 1500 | 372.20 | 2.6867 | 5951.7 | 9.4182 | | 1500 | 327.57 | 3.0528 | 5951.4 | 9.3590 | |
| 432.54 | 2.3119 | 6229.5 | 9.6146 | | 1600 | 393.24 | 2.5430 | 6229.3 | 9.5705 | | 1600 | 346.09 | 2.8894 | 6229.1 | 9.5113 | |
| 478.79 | 2.0886 | 6796.2 | 9.9020 | | 1800 | 435.30 | 2.2973 | 6796.1 | 9.8580 | | 1800 | 383.11 | 2.6102 | 6796.0 | 9.7988 | |
| 525.01 | 1.9047 | 7376.5 | 10.169 | | 2000 | 477.33 | 2.0950 | 7376.5 | 10.125 | | 2000 | 420.11 | 2.3804 | 7376.4 | 10.066 | |

Table 3. Compressed Water and Superheated Steam (continued)

| 3.0 MPa ($t_s = 233.853\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 3.5 MPa ($t_s = 242.557\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 4.0 MPa ($t_s = 250.354\text{ }^{\circ}\text{C}$) | | | |
|---|---------|--------|----------|-------------------------|---|---------|--------|----------|-------------------------|---|---------|--------|----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.216 69 | 821.90 | 1008.3 | 2.6455 | $t_s(\text{L})$ | 1.234 97 | 809.74 | 1049.8 | 2.7254 | $t_s(\text{L})$ | 1.252 56 | 798.37 | 1087.5 | 2.7968 |
| 66.664 | 15.001 | 2803.2 | 6.1856 | $t_s(\text{V})$ | 57.058 | 17.526 | 2802.6 | 6.1243 | $t_s(\text{V})$ | 49.776 | 20.090 | 2800.8 | 6.0696 |
| 0.998 69 | 1001.31 | 3.01 | 0.000 03 | 0 | 0.998 44 | 1001.57 | 3.51 | 0.000 06 | 0 | 0.998 19 | 1001.82 | 4.02 | 0.000 09 |
| 0.998 61 | 1001.39 | 24.00 | 0.076 19 | 5 | 0.998 37 | 1001.63 | 24.50 | 0.076 18 | 5 | 0.998 13 | 1001.88 | 24.99 | 0.076 17 |
| 0.998 92 | 1001.08 | 44.94 | 0.150 81 | 10 | 0.998 68 | 1001.32 | 45.43 | 0.150 76 | 10 | 0.998 44 | 1001.56 | 45.91 | 0.150 72 |
| 0.999 55 | 1000.45 | 65.85 | 0.224 00 | 15 | 0.999 32 | 1000.68 | 66.32 | 0.223 92 | 15 | 0.999 09 | 1000.92 | 66.80 | 0.223 85 |
| 1.000 47 | 999.53 | 86.73 | 0.295 86 | 20 | 1.000 24 | 999.76 | 87.20 | 0.295 75 | 20 | 1.000 01 | 999.99 | 87.67 | 0.295 64 |
| 1.001 65 | 998.35 | 107.60 | 0.366 45 | 25 | 1.001 43 | 998.58 | 108.06 | 0.366 32 | 25 | 1.001 20 | 998.80 | 108.52 | 0.366 19 |
| 1.003 07 | 996.94 | 128.46 | 0.435 84 | 30 | 1.002 85 | 997.16 | 128.92 | 0.435 69 | 30 | 1.002 63 | 997.38 | 129.37 | 0.435 53 |
| 1.004 71 | 995.31 | 149.32 | 0.504 09 | 35 | 1.004 49 | 995.53 | 149.77 | 0.503 91 | 35 | 1.004 27 | 995.75 | 150.22 | 0.503 74 |
| 1.006 56 | 993.48 | 170.18 | 0.571 24 | 40 | 1.006 34 | 993.70 | 170.63 | 0.571 04 | 40 | 1.006 12 | 993.92 | 171.07 | 0.570 85 |
| 1.008 60 | 991.48 | 191.05 | 0.637 34 | 45 | 1.008 38 | 991.69 | 191.48 | 0.637 13 | 45 | 1.008 16 | 991.91 | 191.92 | 0.636 91 |
| 1.010 82 | 989.30 | 211.92 | 0.702 43 | 50 | 1.010 60 | 989.51 | 212.35 | 0.702 19 | 50 | 1.010 38 | 989.73 | 212.78 | 0.701 96 |
| 1.013 22 | 986.95 | 232.79 | 0.766 54 | 55 | 1.013 00 | 987.17 | 233.22 | 0.766 29 | 55 | 1.012 77 | 987.39 | 233.64 | 0.766 04 |
| 1.015 79 | 984.46 | 253.68 | 0.829 71 | 60 | 1.015 56 | 984.68 | 254.10 | 0.829 45 | 60 | 1.015 34 | 984.89 | 254.52 | 0.829 18 |
| 1.018 52 | 981.82 | 274.58 | 0.891 98 | 65 | 1.018 29 | 982.04 | 275.00 | 0.891 69 | 65 | 1.018 07 | 982.26 | 275.41 | 0.891 41 |
| 1.021 41 | 979.04 | 295.49 | 0.953 36 | 70 | 1.021 18 | 979.26 | 295.90 | 0.953 07 | 70 | 1.020 95 | 979.48 | 296.31 | 0.952 77 |
| 1.024 46 | 976.13 | 316.42 | 1.0139 | 75 | 1.024 23 | 976.35 | 316.82 | 1.0136 | 75 | 1.023 99 | 976.57 | 317.23 | 1.0133 |
| 1.027 66 | 973.09 | 337.36 | 1.0736 | 80 | 1.027 42 | 973.31 | 337.76 | 1.0733 | 80 | 1.027 19 | 973.53 | 338.16 | 1.0730 |
| 1.031 01 | 969.92 | 358.32 | 1.1326 | 85 | 1.030 78 | 970.14 | 358.72 | 1.1322 | 85 | 1.030 54 | 970.37 | 359.11 | 1.1319 |
| 1.034 52 | 966.63 | 379.31 | 1.1908 | 90 | 1.034 28 | 966.86 | 379.69 | 1.1904 | 90 | 1.034 03 | 967.09 | 380.08 | 1.1900 |
| 1.038 18 | 963.23 | 400.31 | 1.2482 | 95 | 1.037 93 | 963.46 | 400.69 | 1.2478 | 95 | 1.037 68 | 963.69 | 401.08 | 1.2475 |
| 1.041 99 | 959.71 | 421.34 | 1.3050 | 100 | 1.041 73 | 959.94 | 421.72 | 1.3046 | 100 | 1.041 48 | 960.17 | 422.10 | 1.3042 |
| 1.045 95 | 956.07 | 442.40 | 1.3610 | 105 | 1.045 69 | 956.31 | 442.77 | 1.3606 | 105 | 1.045 43 | 956.54 | 443.15 | 1.3602 |
| 1.050 06 | 952.32 | 463.50 | 1.4164 | 110 | 1.049 80 | 952.56 | 463.86 | 1.4160 | 110 | 1.049 53 | 952.80 | 464.22 | 1.4156 |
| 1.054 33 | 948.47 | 484.62 | 1.4712 | 115 | 1.054 06 | 948.71 | 484.98 | 1.4708 | 115 | 1.053 79 | 948.96 | 485.34 | 1.4703 |
| 1.058 76 | 944.50 | 505.78 | 1.5254 | 120 | 1.058 48 | 944.75 | 506.14 | 1.5249 | 120 | 1.058 20 | 945.00 | 506.49 | 1.5245 |
| 1.063 34 | 940.43 | 526.99 | 1.5790 | 125 | 1.063 06 | 940.68 | 527.33 | 1.5785 | 125 | 1.062 77 | 940.93 | 527.68 | 1.5780 |
| 1.068 09 | 936.25 | 548.23 | 1.6320 | 130 | 1.067 80 | 936.51 | 548.57 | 1.6315 | 130 | 1.067 51 | 936.76 | 548.91 | 1.6310 |
| 1.073 01 | 931.96 | 569.53 | 1.6845 | 135 | 1.072 71 | 932.22 | 569.86 | 1.6840 | 135 | 1.072 40 | 932.48 | 570.19 | 1.6835 |
| 1.078 10 | 927.56 | 590.87 | 1.7365 | 140 | 1.077 78 | 927.83 | 591.20 | 1.7360 | 140 | 1.077 47 | 928.10 | 591.53 | 1.7354 |
| 1.083 36 | 923.05 | 612.28 | 1.7880 | 145 | 1.083 04 | 923.33 | 612.60 | 1.7874 | 145 | 1.082 72 | 923.60 | 612.91 | 1.7869 |
| 1.088 81 | 918.44 | 633.74 | 1.8390 | 150 | 1.088 47 | 918.72 | 634.05 | 1.8384 | 150 | 1.088 14 | 919.00 | 634.36 | 1.8379 |
| 1.094 44 | 913.71 | 655.27 | 1.8896 | 155 | 1.094 10 | 914.00 | 655.57 | 1.8890 | 155 | 1.093 75 | 914.28 | 655.87 | 1.8884 |
| 1.100 27 | 908.87 | 676.87 | 1.9397 | 160 | 1.099 91 | 909.16 | 677.16 | 1.9391 | 160 | 1.099 56 | 909.46 | 677.45 | 1.9385 |
| 1.106 30 | 903.91 | 698.54 | 1.9895 | 165 | 1.105 93 | 904.21 | 698.82 | 1.9889 | 165 | 1.105 56 | 904.52 | 699.11 | 1.9882 |
| 1.112 55 | 898.84 | 720.29 | 2.0388 | 170 | 1.112 16 | 899.15 | 720.57 | 2.0382 | 170 | 1.111 78 | 899.46 | 720.84 | 2.0376 |
| 1.119 01 | 893.65 | 742.13 | 2.0878 | 175 | 1.118 61 | 893.97 | 742.40 | 2.0872 | 175 | 1.118 21 | 894.29 | 742.66 | 2.0865 |
| 1.125 71 | 888.33 | 764.06 | 2.1365 | 180 | 1.125 29 | 888.66 | 764.32 | 2.1358 | 180 | 1.124 87 | 888.99 | 764.57 | 2.1352 |
| 1.132 65 | 882.89 | 786.09 | 2.1849 | 185 | 1.132 21 | 883.23 | 786.34 | 2.1842 | 185 | 1.131 77 | 883.57 | 786.58 | 2.1835 |
| 1.139 84 | 877.31 | 808.23 | 2.2329 | 190 | 1.139 38 | 877.67 | 808.46 | 2.2322 | 190 | 1.138 93 | 878.02 | 808.69 | 2.2315 |
| 1.147 31 | 871.61 | 830.48 | 2.2807 | 195 | 1.146 83 | 871.97 | 830.70 | 2.2799 | 195 | 1.146 35 | 872.33 | 830.92 | 2.2792 |
| 1.155 06 | 865.76 | 852.86 | 2.3282 | 200 | 1.154 56 | 866.13 | 853.06 | 2.3275 | 200 | 1.154 05 | 866.51 | 853.27 | 2.3267 |
| 1.171 49 | 853.61 | 898.01 | 2.4227 | 210 | 1.170 94 | 854.02 | 898.18 | 2.4218 | 210 | 1.170 38 | 854.42 | 898.35 | 2.4210 |
| 1.189 31 | 840.82 | 943.76 | 2.5164 | 220 | 1.188 69 | 841.26 | 943.90 | 2.5155 | 220 | 1.188 07 | 841.70 | 944.04 | 2.5146 |
| 1.208 73 | 827.32 | 990.23 | 2.6097 | 230 | 1.208 03 | 827.80 | 990.32 | 2.6087 | 230 | 1.207 33 | 828.28 | 990.42 | 2.6077 |
| 68.230 | 14.656 | 2824.5 | 6.2274 | 240 | 1.229 21 | 813.53 | 1037.6 | 2.7016 | 240 | 1.228 42 | 814.06 | 1037.6 | 2.7005 |
| 70.627 | 14.159 | 2856.5 | 6.2893 | 250 | 58.757 | 17.019 | 2829.7 | 6.1764 | 250 | 1.251 69 | 798.92 | 1085.8 | 2.7935 |
| 72.895 | 13.718 | 2886.4 | 6.3459 | 260 | 60.888 | 16.424 | 2862.9 | 6.2393 | 260 | 51.777 | 19.314 | 2837.1 | 6.1383 |
| 75.066 | 13.322 | 2914.9 | 6.3987 | 270 | 62.898 | 15.899 | 2893.8 | 6.2968 | 270 | 53.693 | 18.624 | 2871.2 | 6.2016 |
| 77.162 | 12.960 | 2942.2 | 6.4486 | 280 | 64.817 | 15.428 | 2923.2 | 6.3503 | 280 | 55.497 | 18.019 | 2902.9 | 6.2595 |
| 79.196 | 12.627 | 2968.6 | 6.4959 | 290 | 66.664 | 15.001 | 2951.3 | 6.4006 | 290 | 57.217 | 17.477 | 2933.0 | 6.3133 |

Table 3. Compressed Water and Superheated Steam (continued)

| 3.0 MPa ($t_s = 233.853^\circ\text{C}$) | | | | | 3.5 MPa ($t_s = 242.557^\circ\text{C}$) | | | | | 4.0 MPa ($t_s = 250.354^\circ\text{C}$) | | | | |
|---|--------|--------|--------|---------------------|---|--------|--------|--------|---------------------|---|--------|--------|--------|---------------------|
| v | ρ | h | s | $t, ^\circ\text{C}$ | v | ρ | h | s | $t, ^\circ\text{C}$ | v | ρ | h | s | $t, ^\circ\text{C}$ |
| 81.179 | 12.318 | 2994.3 | 6.5412 | 300 | 68.453 | 14.609 | 2978.4 | 6.4484 | 300 | 58.870 | 16.987 | 2961.7 | 6.3639 | 300 |
| 83.119 | 12.031 | 3019.5 | 6.5847 | 310 | 70.194 | 14.246 | 3004.8 | 6.4940 | 310 | 60.468 | 16.538 | 2989.4 | 6.4118 | 310 |
| 85.022 | 11.762 | 3044.2 | 6.6266 | 320 | 71.894 | 13.909 | 3030.5 | 6.5377 | 320 | 62.021 | 16.123 | 3016.3 | 6.4576 | 320 |
| 86.893 | 11.508 | 3068.4 | 6.6672 | 330 | 73.559 | 13.595 | 3055.7 | 6.5799 | 330 | 63.536 | 15.739 | 3042.5 | 6.5014 | 330 |
| 88.737 | 11.269 | 3092.4 | 6.7066 | 340 | 75.194 | 13.299 | 3080.4 | 6.6206 | 340 | 65.019 | 15.380 | 3068.1 | 6.5435 | 340 |
| 90.556 | 11.043 | 3116.1 | 6.7449 | 350 | 76.804 | 13.020 | 3104.8 | 6.6601 | 350 | 66.473 | 15.044 | 3093.3 | 6.5843 | 350 |
| 92.355 | 10.828 | 3139.5 | 6.7823 | 360 | 78.390 | 12.757 | 3128.9 | 6.6984 | 360 | 67.903 | 14.727 | 3118.1 | 6.6238 | 360 |
| 94.134 | 10.623 | 3162.8 | 6.8187 | 370 | 79.956 | 12.507 | 3152.8 | 6.7358 | 370 | 69.311 | 14.428 | 3142.6 | 6.6621 | 370 |
| 95.897 | 10.428 | 3185.9 | 6.8544 | 380 | 81.505 | 12.269 | 3176.4 | 6.7723 | 380 | 70.701 | 14.144 | 3166.8 | 6.6994 | 380 |
| 97.645 | 10.241 | 3208.8 | 6.8892 | 390 | 83.038 | 12.043 | 3199.9 | 6.8079 | 390 | 72.073 | 13.875 | 3190.7 | 6.7358 | 390 |
| 99.379 | 10.062 | 3231.7 | 6.9234 | 400 | 84.556 | 11.826 | 3223.2 | 6.8427 | 400 | 73.431 | 13.618 | 3214.5 | 6.7714 | 400 |
| 101.10 | 9.8911 | 3254.4 | 6.9570 | 410 | 86.062 | 11.620 | 3246.3 | 6.8769 | 410 | 74.776 | 13.373 | 3238.1 | 6.8061 | 410 |
| 102.81 | 9.7265 | 3277.1 | 6.9900 | 420 | 87.556 | 11.421 | 3269.4 | 6.9104 | 420 | 76.108 | 13.139 | 3261.5 | 6.8402 | 420 |
| 104.51 | 9.5682 | 3299.7 | 7.0224 | 430 | 89.039 | 11.231 | 3292.3 | 6.9433 | 430 | 77.429 | 12.915 | 3284.8 | 6.8736 | 430 |
| 106.20 | 9.4159 | 3322.3 | 7.0542 | 440 | 90.513 | 11.048 | 3315.2 | 6.9756 | 440 | 78.741 | 12.700 | 3308.0 | 6.9064 | 440 |
| 107.89 | 9.2690 | 3344.8 | 7.0856 | 450 | 91.978 | 10.872 | 3338.0 | 7.0074 | 450 | 80.043 | 12.493 | 3331.2 | 6.9386 | 450 |
| 109.56 | 9.1273 | 3367.3 | 7.1165 | 460 | 93.435 | 10.703 | 3360.8 | 7.0387 | 460 | 81.337 | 12.295 | 3354.2 | 6.9703 | 460 |
| 111.23 | 8.9904 | 3389.8 | 7.1470 | 470 | 94.885 | 10.539 | 3383.6 | 7.0695 | 470 | 82.623 | 12.103 | 3377.2 | 7.0015 | 470 |
| 112.89 | 8.8581 | 3412.3 | 7.1770 | 480 | 96.328 | 10.381 | 3406.3 | 7.0998 | 480 | 83.902 | 11.919 | 3400.2 | 7.0321 | 480 |
| 114.55 | 8.7301 | 3434.8 | 7.2066 | 490 | 97.764 | 10.229 | 3429.0 | 7.1298 | 490 | 85.175 | 11.741 | 3423.1 | 7.0624 | 490 |
| 116.20 | 8.6062 | 3457.2 | 7.2359 | 500 | 99.195 | 10.081 | 3451.6 | 7.1593 | 500 | 86.442 | 11.568 | 3446.0 | 7.0922 | 500 |
| 119.48 | 8.3697 | 3502.2 | 7.2933 | 520 | 102.04 | 9.8001 | 3497.0 | 7.2172 | 520 | 88.959 | 11.241 | 3491.8 | 7.1506 | 520 |
| 122.74 | 8.1471 | 3547.2 | 7.3493 | 540 | 104.87 | 9.5360 | 3542.3 | 7.2737 | 540 | 91.457 | 10.934 | 3537.5 | 7.2075 | 540 |
| 125.99 | 7.9371 | 3592.3 | 7.4041 | 560 | 107.68 | 9.2871 | 3587.7 | 7.3288 | 560 | 93.938 | 10.645 | 3583.2 | 7.2631 | 560 |
| 129.22 | 7.7385 | 3637.5 | 7.4577 | 580 | 110.47 | 9.0521 | 3633.2 | 7.3828 | 580 | 96.405 | 10.373 | 3629.0 | 7.3174 | 580 |
| 132.45 | 7.5503 | 3682.8 | 7.5103 | 600 | 113.25 | 8.8297 | 3678.9 | 7.4356 | 600 | 98.859 | 10.115 | 3674.9 | 7.3705 | 600 |
| 135.66 | 7.3716 | 3728.3 | 7.5618 | 620 | 116.02 | 8.6189 | 3724.6 | 7.4874 | 620 | 101.30 | 9.8716 | 3720.9 | 7.4226 | 620 |
| 138.86 | 7.2017 | 3774.0 | 7.6124 | 640 | 118.79 | 8.4185 | 3770.5 | 7.5383 | 640 | 103.73 | 9.6402 | 3767.0 | 7.4737 | 640 |
| 142.05 | 7.0399 | 3819.9 | 7.6621 | 660 | 121.54 | 8.2279 | 3816.6 | 7.5882 | 660 | 106.16 | 9.4202 | 3813.2 | 7.5238 | 660 |
| 145.23 | 6.8856 | 3866.0 | 7.7109 | 680 | 124.28 | 8.0463 | 3862.8 | 7.6372 | 680 | 108.57 | 9.2107 | 3859.7 | 7.5730 | 680 |
| 148.41 | 6.7383 | 3912.2 | 7.7590 | 700 | 127.02 | 7.8729 | 3909.3 | 7.6854 | 700 | 110.98 | 9.0109 | 3906.3 | 7.6214 | 700 |
| 151.57 | 6.5974 | 3958.7 | 7.8062 | 720 | 129.75 | 7.7073 | 3955.9 | 7.7329 | 720 | 113.38 | 8.8202 | 3953.1 | 7.6690 | 720 |
| 154.74 | 6.4625 | 4005.4 | 7.8528 | 740 | 132.47 | 7.5488 | 4002.8 | 7.7796 | 740 | 115.77 | 8.6377 | 4000.1 | 7.7159 | 740 |
| 157.90 | 6.3333 | 4052.4 | 7.8987 | 760 | 135.19 | 7.3970 | 4049.8 | 7.8256 | 760 | 118.16 | 8.4631 | 4047.3 | 7.7620 | 760 |
| 161.05 | 6.2093 | 4099.5 | 7.9439 | 780 | 137.90 | 7.2515 | 4097.1 | 7.8709 | 780 | 120.54 | 8.2958 | 4094.7 | 7.8074 | 780 |
| 164.20 | 6.0903 | 4146.9 | 7.9885 | 800 | 140.61 | 7.1118 | 4144.6 | 7.9156 | 800 | 122.92 | 8.1352 | 4142.3 | 7.8523 | 800 |
| 167.34 | 5.9759 | 4194.6 | 8.0325 | 820 | 143.32 | 6.9776 | 4192.4 | 7.9597 | 820 | 125.30 | 7.9811 | 4190.2 | 7.8964 | 820 |
| 170.48 | 5.8658 | 4242.4 | 8.0759 | 840 | 146.02 | 6.8486 | 4240.3 | 8.0032 | 840 | 127.67 | 7.8328 | 4238.3 | 7.9400 | 840 |
| 173.62 | 5.7599 | 4290.5 | 8.1187 | 860 | 148.71 | 6.7244 | 4288.6 | 8.0461 | 860 | 130.03 | 7.6903 | 4286.6 | 7.9830 | 860 |
| 176.75 | 5.6578 | 4338.9 | 8.1610 | 880 | 151.41 | 6.6048 | 4337.0 | 8.0885 | 880 | 132.40 | 7.5530 | 4335.1 | 8.0255 | 880 |
| 179.88 | 5.5593 | 4387.5 | 8.2028 | 900 | 154.10 | 6.4895 | 4385.7 | 8.1303 | 900 | 134.76 | 7.4206 | 4383.9 | 8.0674 | 900 |
| 183.01 | 5.4643 | 4436.3 | 8.2441 | 920 | 156.78 | 6.3782 | 4434.6 | 8.1717 | 920 | 137.12 | 7.2930 | 4432.9 | 8.1088 | 920 |
| 186.13 | 5.3726 | 4485.4 | 8.2849 | 940 | 159.47 | 6.2708 | 4483.8 | 8.2126 | 940 | 139.47 | 7.1699 | 4482.1 | 8.1498 | 940 |
| 189.25 | 5.2840 | 4534.8 | 8.3252 | 960 | 162.15 | 6.1671 | 4533.2 | 8.2529 | 960 | 141.83 | 7.0509 | 4531.6 | 8.1902 | 960 |
| 192.37 | 5.1983 | 4584.3 | 8.3651 | 980 | 164.83 | 6.0668 | 4582.8 | 8.2929 | 980 | 144.18 | 6.9360 | 4581.3 | 8.2302 | 980 |
| 195.49 | 5.1154 | 4634.1 | 8.4045 | 1000 | 167.51 | 5.9698 | 4632.7 | 8.3324 | 1000 | 146.52 | 6.8248 | 4631.2 | 8.2697 | 1000 |
| 211.05 | 4.7382 | 4886.7 | 8.5955 | 1100 | 180.87 | 5.5288 | 4885.6 | 8.5235 | 1100 | 158.24 | 6.3195 | 4884.4 | 8.4611 | 1100 |
| 226.57 | 4.4136 | 5145.0 | 8.7770 | 1200 | 194.20 | 5.1494 | 5144.1 | 8.7053 | 1200 | 169.92 | 5.8852 | 5143.1 | 8.6430 | 1200 |
| 242.07 | 4.1310 | 5408.8 | 8.9502 | 1300 | 207.50 | 4.8193 | 5408.0 | 8.8785 | 1300 | 181.57 | 5.5075 | 5407.2 | 8.8164 | 1300 |
| 257.55 | 3.8828 | 5677.5 | 9.1158 | 1400 | 220.78 | 4.5294 | 5676.9 | 9.0443 | 1400 | 193.20 | 5.1760 | 5676.3 | 8.9822 | 1400 |
| 273.01 | 3.6629 | 5950.9 | 9.2745 | 1500 | 234.04 | 4.2728 | 5950.4 | 9.2030 | 1500 | 204.81 | 4.8825 | 5949.9 | 9.1411 | 1500 |
| 288.46 | 3.4667 | 6228.7 | 9.4269 | 1600 | 247.29 | 4.0438 | 6228.3 | 9.3555 | 1600 | 216.42 | 4.6207 | 6227.9 | 9.2935 | 1600 |
| 319.32 | 3.1316 | 6795.8 | 9.7145 | 1800 | 273.76 | 3.6528 | 6795.5 | 9.6431 | 1800 | 239.59 | 4.1738 | 6795.3 | 9.5813 | 1800 |
| 350.17 | 2.8558 | 7376.3 | 9.9818 | 2000 | 300.21 | 3.3310 | 7376.2 | 9.9105 | 2000 | 262.74 | 3.8060 | 7376.0 | 9.8487 | 2000 |

Table 3. Compressed Water and Superheated Steam (continued)

| 4.5 MPa ($t_s = 257.437\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 5.0 MPa ($t_s = 263.941\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 5.5 MPa ($t_s = 269.965\text{ }^{\circ}\text{C}$) | | | |
|---|---------|--------|----------|-------------------------|---|---------|--------|----------|-------------------------|---|---------|--------|----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.269 65 | 787.62 | 1122.2 | 2.8615 | $t_s(\text{L})$ | 1.286 39 | 777.37 | 1154.6 | 2.9210 | $t_s(\text{L})$ | 1.302 90 | 767.52 | 1185.1 | 2.9762 |
| 44.059 | 22.697 | 2797.9 | 6.0197 | $t_s(\text{V})$ | 39.446 | 25.351 | 2794.2 | 5.9737 | $t_s(\text{V})$ | 35.642 | 28.057 | 2789.7 | 5.9307 |
| 0.997 93 | 1002.07 | 4.53 | 0.000 11 | 0 | 0.997 68 | 1002.32 | 5.03 | 0.000 14 | 0 | 0.997 43 | 1002.57 | 5.54 | 0.000 16 |
| 0.997 89 | 1002.12 | 25.49 | 0.076 15 | 5 | 0.997 64 | 1002.36 | 25.98 | 0.076 14 | 5 | 0.997 40 | 1002.61 | 26.48 | 0.076 12 |
| 0.998 21 | 1001.79 | 46.40 | 0.150 67 | 10 | 0.997 97 | 1002.03 | 46.88 | 0.150 62 | 10 | 0.997 74 | 1002.27 | 47.37 | 0.150 57 |
| 0.998 85 | 1001.15 | 67.28 | 0.223 77 | 15 | 0.998 62 | 1001.38 | 67.75 | 0.223 69 | 15 | 0.998 39 | 1001.61 | 68.23 | 0.223 61 |
| 0.999 79 | 1000.21 | 88.14 | 0.295 54 | 20 | 0.999 56 | 1000.44 | 88.61 | 0.295 43 | 20 | 0.999 33 | 1000.67 | 89.08 | 0.295 32 |
| 1.000 98 | 999.02 | 108.99 | 0.366 05 | 25 | 1.000 75 | 999.25 | 109.45 | 0.365 92 | 25 | 1.000 53 | 999.47 | 109.91 | 0.365 79 |
| 1.002 40 | 997.60 | 129.83 | 0.435 38 | 30 | 1.002 18 | 997.82 | 130.28 | 0.435 22 | 30 | 1.001 96 | 998.04 | 130.74 | 0.435 07 |
| 1.004 05 | 995.97 | 150.67 | 0.503 56 | 35 | 1.003 83 | 996.19 | 151.12 | 0.503 39 | 35 | 1.003 61 | 996.40 | 151.56 | 0.503 21 |
| 1.005 90 | 994.14 | 171.51 | 0.570 66 | 40 | 1.005 68 | 994.36 | 171.95 | 0.570 46 | 40 | 1.005 46 | 994.57 | 172.39 | 0.570 27 |
| 1.007 94 | 992.13 | 192.36 | 0.636 70 | 45 | 1.007 72 | 992.34 | 192.79 | 0.636 49 | 45 | 1.007 50 | 992.56 | 193.23 | 0.636 27 |
| 1.010 16 | 989.95 | 213.21 | 0.701 73 | 50 | 1.009 94 | 990.16 | 213.64 | 0.701 50 | 50 | 1.009 72 | 990.38 | 214.07 | 0.701 27 |
| 1.012 55 | 987.60 | 234.07 | 0.765 79 | 55 | 1.012 33 | 987.82 | 234.49 | 0.765 55 | 55 | 1.012 11 | 988.04 | 234.92 | 0.765 30 |
| 1.015 11 | 985.11 | 254.94 | 0.828 92 | 60 | 1.014 89 | 985.33 | 255.36 | 0.828 65 | 60 | 1.014 67 | 985.54 | 255.78 | 0.828 39 |
| 1.017 84 | 982.47 | 275.82 | 0.891 13 | 65 | 1.017 62 | 982.69 | 276.24 | 0.890 85 | 65 | 1.017 39 | 982.91 | 276.65 | 0.890 57 |
| 1.020 72 | 979.70 | 296.72 | 0.952 47 | 70 | 1.020 50 | 979.92 | 297.13 | 0.952 18 | 70 | 1.020 27 | 980.13 | 297.54 | 0.951 88 |
| 1.023 76 | 976.79 | 317.63 | 1.0130 | 75 | 1.023 53 | 977.01 | 318.03 | 1.0127 | 75 | 1.023 30 | 977.23 | 318.44 | 1.0123 |
| 1.026 96 | 973.75 | 338.56 | 1.0727 | 80 | 1.026 72 | 973.97 | 338.95 | 1.0723 | 80 | 1.026 49 | 974.19 | 339.35 | 1.0720 |
| 1.030 30 | 970.59 | 359.50 | 1.1315 | 85 | 1.030 06 | 970.82 | 359.90 | 1.1312 | 85 | 1.029 82 | 971.04 | 360.29 | 1.1309 |
| 1.033 79 | 967.31 | 380.47 | 1.1897 | 90 | 1.033 55 | 967.54 | 380.86 | 1.1893 | 90 | 1.033 31 | 967.76 | 381.24 | 1.1890 |
| 1.037 44 | 963.91 | 401.46 | 1.2471 | 95 | 1.037 19 | 964.14 | 401.84 | 1.2467 | 95 | 1.036 94 | 964.37 | 402.22 | 1.2463 |
| 1.041 23 | 960.40 | 422.47 | 1.3038 | 100 | 1.040 98 | 960.63 | 422.85 | 1.3034 | 100 | 1.040 73 | 960.87 | 423.23 | 1.3030 |
| 1.045 17 | 956.78 | 443.52 | 1.3598 | 105 | 1.044 92 | 957.01 | 443.89 | 1.3594 | 105 | 1.044 66 | 957.25 | 444.26 | 1.3590 |
| 1.049 27 | 953.04 | 464.59 | 1.4152 | 110 | 1.049 01 | 953.28 | 464.95 | 1.4147 | 110 | 1.048 75 | 953.52 | 465.32 | 1.4143 |
| 1.053 52 | 949.20 | 485.70 | 1.4699 | 115 | 1.053 25 | 949.44 | 486.06 | 1.4695 | 115 | 1.052 98 | 949.68 | 486.41 | 1.4690 |
| 1.057 93 | 945.25 | 506.84 | 1.5240 | 120 | 1.057 65 | 945.49 | 507.19 | 1.5236 | 120 | 1.057 37 | 945.74 | 507.55 | 1.5231 |
| 1.062 49 | 941.19 | 528.02 | 1.5776 | 125 | 1.062 20 | 941.44 | 528.37 | 1.5771 | 125 | 1.061 92 | 941.69 | 528.72 | 1.5766 |
| 1.067 21 | 937.02 | 549.25 | 1.6305 | 130 | 1.066 92 | 937.28 | 549.59 | 1.6301 | 130 | 1.066 63 | 937.53 | 549.93 | 1.6296 |
| 1.072 10 | 932.75 | 570.53 | 1.6830 | 135 | 1.071 80 | 933.01 | 570.86 | 1.6825 | 135 | 1.071 50 | 933.27 | 571.19 | 1.6820 |
| 1.077 16 | 928.36 | 591.85 | 1.7349 | 140 | 1.076 85 | 928.63 | 592.18 | 1.7344 | 140 | 1.076 54 | 928.90 | 592.50 | 1.7339 |
| 1.082 40 | 923.88 | 613.23 | 1.7864 | 145 | 1.082 08 | 924.15 | 613.55 | 1.7858 | 145 | 1.081 76 | 924.42 | 613.87 | 1.7853 |
| 1.087 81 | 919.28 | 634.67 | 1.8373 | 150 | 1.087 48 | 919.56 | 634.98 | 1.8368 | 150 | 1.087 15 | 919.84 | 635.29 | 1.8362 |
| 1.093 41 | 914.57 | 656.18 | 1.8879 | 155 | 1.093 07 | 914.86 | 656.48 | 1.8873 | 155 | 1.092 73 | 915.14 | 656.78 | 1.8867 |
| 1.099 20 | 909.75 | 677.75 | 1.9379 | 160 | 1.098 85 | 910.05 | 678.04 | 1.9374 | 160 | 1.098 49 | 910.34 | 678.34 | 1.9368 |
| 1.105 19 | 904.82 | 699.39 | 1.9876 | 165 | 1.104 82 | 905.12 | 699.68 | 1.9870 | 165 | 1.104 46 | 905.42 | 699.97 | 1.9864 |
| 1.111 39 | 899.77 | 721.12 | 2.0369 | 170 | 1.111 01 | 900.08 | 721.40 | 2.0363 | 170 | 1.110 63 | 900.39 | 721.67 | 2.0357 |
| 1.117 81 | 894.61 | 742.93 | 2.0859 | 175 | 1.117 41 | 894.93 | 743.19 | 2.0852 | 175 | 1.117 01 | 895.24 | 743.46 | 2.0846 |
| 1.124 45 | 889.32 | 764.83 | 2.1345 | 180 | 1.124 04 | 889.65 | 765.08 | 2.1338 | 180 | 1.123 63 | 889.98 | 765.34 | 2.1331 |
| 1.131 34 | 883.91 | 786.83 | 2.1827 | 185 | 1.130 91 | 884.25 | 787.07 | 2.1821 | 185 | 1.130 47 | 884.58 | 787.32 | 2.1814 |
| 1.138 47 | 878.37 | 808.93 | 2.2307 | 190 | 1.138 02 | 878.72 | 809.16 | 2.2300 | 190 | 1.137 57 | 879.07 | 809.39 | 2.2293 |
| 1.145 87 | 872.70 | 831.14 | 2.2784 | 195 | 1.145 40 | 873.06 | 831.36 | 2.2777 | 195 | 1.144 93 | 873.42 | 831.58 | 2.2769 |
| 1.153 55 | 866.89 | 853.47 | 2.3259 | 200 | 1.153 06 | 867.26 | 853.68 | 2.3251 | 200 | 1.152 56 | 867.63 | 853.89 | 2.3243 |
| 1.169 83 | 854.83 | 898.53 | 2.4201 | 210 | 1.169 28 | 855.23 | 898.71 | 2.4193 | 210 | 1.168 73 | 855.63 | 898.88 | 2.4184 |
| 1.187 45 | 842.14 | 944.18 | 2.5136 | 220 | 1.186 84 | 842.58 | 944.32 | 2.5127 | 220 | 1.186 23 | 843.01 | 944.46 | 2.5118 |
| 1.206 63 | 828.75 | 990.52 | 2.6067 | 230 | 1.205 94 | 829.23 | 990.62 | 2.6057 | 230 | 1.205 25 | 829.70 | 990.72 | 2.6047 |
| 1.227 63 | 814.58 | 1037.7 | 2.6994 | 240 | 1.226 84 | 815.10 | 1037.7 | 2.6983 | 240 | 1.226 06 | 815.62 | 1037.8 | 2.6972 |
| 1.250 77 | 799.51 | 1085.8 | 2.7922 | 250 | 1.249 87 | 800.09 | 1085.7 | 2.7910 | 250 | 1.248 97 | 800.66 | 1085.7 | 2.7898 |
| 44.572 | 22.435 | 2808.6 | 6.0397 | 260 | 1.275 47 | 784.03 | 1134.9 | 2.8841 | 260 | 1.274 42 | 784.67 | 1134.8 | 2.8828 |
| 46.451 | 21.528 | 2846.7 | 6.1105 | 270 | 40.567 | 24.651 | 2819.8 | 6.0211 | 270 | 35.648 | 28.052 | 2789.9 | 5.9310 |
| 48.186 | 20.753 | 2881.3 | 6.1737 | 280 | 42.274 | 23.655 | 2858.1 | 6.0909 | 280 | 37.367 | 26.762 | 2832.9 | 6.0095 |
| 49.821 | 20.072 | 2913.6 | 6.2316 | 290 | 43.856 | 22.802 | 2893.0 | 6.1536 | 290 | 38.925 | 25.691 | 2871.1 | 6.0779 |

Table 3. Compressed Water and Superheated Steam (continued)

| 4.5 MPa ($t_s = 257.437\text{ }^{\circ}\text{C}$) | | | | | 5.0 MPa ($t_s = 263.941\text{ }^{\circ}\text{C}$) | | | | | 5.5 MPa ($t_s = 269.965\text{ }^{\circ}\text{C}$) | | | | |
|---|--------|--------|--------|-------------------------|---|--------|--------|--------|-------------------------|---|--------|--------|--------|-------------------------|
| v | ρ | h | s | $t_s, ^{\circ}\text{C}$ | v | ρ | h | s | $t_s, ^{\circ}\text{C}$ | v | ρ | h | s | $t_s, ^{\circ}\text{C}$ |
| 51.378 | 19.464 | 2944.2 | 6.2854 | 300 | 45.346 | 22.053 | 2925.7 | 6.2110 | 300 | 40.373 | 24.769 | 2906.2 | 6.1397 | 300 |
| 52.873 | 18.913 | 2973.4 | 6.3359 | 310 | 46.766 | 21.383 | 2956.6 | 6.2646 | 310 | 41.740 | 23.958 | 2939.1 | 6.1966 | 310 |
| 54.317 | 18.410 | 3001.6 | 6.3838 | 320 | 48.130 | 20.777 | 2986.2 | 6.3149 | 320 | 43.043 | 23.233 | 2970.3 | 6.2496 | 320 |
| 55.720 | 17.947 | 3028.9 | 6.4295 | 330 | 49.446 | 20.224 | 3014.7 | 6.3626 | 330 | 44.294 | 22.576 | 3000.1 | 6.2995 | 330 |
| 57.087 | 17.517 | 3055.5 | 6.4732 | 340 | 50.724 | 19.714 | 3042.4 | 6.4080 | 340 | 45.502 | 21.977 | 3028.9 | 6.3468 | 340 |
| 58.423 | 17.117 | 3081.5 | 6.5153 | 350 | 51.969 | 19.242 | 3069.3 | 6.4516 | 350 | 46.675 | 21.425 | 3056.8 | 6.3920 | 350 |
| 59.733 | 16.741 | 3107.0 | 6.5560 | 360 | 53.186 | 18.802 | 3095.6 | 6.4935 | 360 | 47.817 | 20.913 | 3084.0 | 6.4352 | 360 |
| 61.021 | 16.388 | 3132.1 | 6.5953 | 370 | 54.378 | 18.390 | 3121.5 | 6.5340 | 370 | 48.934 | 20.436 | 3110.5 | 6.4769 | 370 |
| 62.288 | 16.054 | 3156.9 | 6.6336 | 380 | 55.549 | 18.002 | 3146.9 | 6.5732 | 380 | 50.027 | 19.989 | 3136.6 | 6.5171 | 380 |
| 63.538 | 15.739 | 3181.4 | 6.6708 | 390 | 56.702 | 17.636 | 3171.9 | 6.6112 | 390 | 51.101 | 19.569 | 3162.3 | 6.5561 | 390 |
| 64.772 | 15.439 | 3205.6 | 6.7070 | 400 | 57.837 | 17.290 | 3196.7 | 6.6483 | 400 | 52.158 | 19.173 | 3187.5 | 6.5939 | 400 |
| 65.991 | 15.153 | 3229.7 | 6.7425 | 410 | 58.958 | 16.961 | 3221.2 | 6.6844 | 410 | 53.199 | 18.797 | 3212.5 | 6.6307 | 410 |
| 67.199 | 14.881 | 3253.5 | 6.7771 | 420 | 60.066 | 16.648 | 3245.4 | 6.7196 | 420 | 54.226 | 18.441 | 3237.2 | 6.6666 | 420 |
| 68.394 | 14.621 | 3277.2 | 6.8111 | 430 | 61.162 | 16.350 | 3269.5 | 6.7541 | 430 | 55.241 | 18.102 | 3261.7 | 6.7017 | 430 |
| 69.580 | 14.372 | 3300.8 | 6.8443 | 440 | 62.248 | 16.065 | 3293.4 | 6.7879 | 440 | 56.245 | 17.779 | 3286.0 | 6.7360 | 440 |
| 70.756 | 14.133 | 3324.2 | 6.8770 | 450 | 63.323 | 15.792 | 3317.2 | 6.8210 | 450 | 57.239 | 17.471 | 3310.1 | 6.7696 | 450 |
| 71.924 | 13.904 | 3347.6 | 6.9091 | 460 | 64.390 | 15.530 | 3340.9 | 6.8535 | 460 | 58.224 | 17.175 | 3334.1 | 6.8025 | 460 |
| 73.083 | 13.683 | 3370.9 | 6.9406 | 470 | 65.449 | 15.279 | 3364.4 | 6.8854 | 470 | 59.200 | 16.892 | 3357.9 | 6.8348 | 470 |
| 74.236 | 13.471 | 3394.1 | 6.9716 | 480 | 66.500 | 15.038 | 3387.9 | 6.9168 | 480 | 60.169 | 16.620 | 3381.7 | 6.8666 | 480 |
| 75.381 | 13.266 | 3417.2 | 7.0022 | 490 | 67.545 | 14.805 | 3411.3 | 6.9477 | 490 | 61.131 | 16.358 | 3405.3 | 6.8978 | 490 |
| 76.521 | 13.068 | 3440.4 | 7.0323 | 500 | 68.583 | 14.581 | 3434.7 | 6.9781 | 500 | 62.086 | 16.107 | 3428.9 | 6.9285 | 500 |
| 77.784 | 12.693 | 3486.5 | 7.0912 | 520 | 70.642 | 14.156 | 3481.2 | 7.0375 | 520 | 63.979 | 15.630 | 3475.9 | 6.9885 | 520 |
| 81.027 | 12.342 | 3532.6 | 7.1486 | 540 | 72.681 | 13.759 | 3527.7 | 7.0954 | 540 | 65.852 | 15.185 | 3522.7 | 7.0468 | 540 |
| 83.253 | 12.012 | 3578.6 | 7.2046 | 560 | 74.703 | 13.386 | 3574.1 | 7.1517 | 560 | 67.708 | 14.769 | 3569.4 | 7.1035 | 560 |
| 85.464 | 11.701 | 3624.7 | 7.2592 | 580 | 76.710 | 13.036 | 3620.4 | 7.2067 | 580 | 69.548 | 14.379 | 3616.1 | 7.1589 | 580 |
| 87.662 | 11.407 | 3670.9 | 7.3127 | 600 | 78.704 | 12.706 | 3666.8 | 7.2605 | 600 | 71.374 | 14.011 | 3662.8 | 7.2130 | 600 |
| 89.848 | 11.130 | 3717.1 | 7.3650 | 620 | 80.685 | 12.394 | 3713.3 | 7.3131 | 620 | 73.188 | 13.663 | 3709.5 | 7.2659 | 620 |
| 92.024 | 10.867 | 3763.4 | 7.4163 | 640 | 82.657 | 12.098 | 3759.9 | 7.3647 | 640 | 74.992 | 13.335 | 3756.3 | 7.3177 | 640 |
| 94.191 | 10.617 | 3809.9 | 7.4666 | 660 | 84.619 | 11.818 | 3806.5 | 7.4152 | 660 | 76.787 | 13.023 | 3803.2 | 7.3685 | 660 |
| 96.349 | 10.379 | 3856.5 | 7.5161 | 680 | 86.572 | 11.551 | 3853.3 | 7.4649 | 680 | 78.573 | 12.727 | 3850.2 | 7.4183 | 680 |
| 98.500 | 10.152 | 3903.3 | 7.5646 | 700 | 88.518 | 11.297 | 3900.3 | 7.5136 | 700 | 80.351 | 12.445 | 3897.3 | 7.4672 | 700 |
| 100.64 | 9.9360 | 3950.2 | 7.6124 | 720 | 90.457 | 11.055 | 3947.4 | 7.5615 | 720 | 82.123 | 12.177 | 3944.6 | 7.5153 | 720 |
| 102.78 | 9.7294 | 3997.4 | 7.6594 | 740 | 92.390 | 10.824 | 3994.7 | 7.6087 | 740 | 83.888 | 11.921 | 3992.0 | 7.5626 | 740 |
| 104.91 | 9.5316 | 4044.7 | 7.7057 | 760 | 94.318 | 10.602 | 4042.2 | 7.6551 | 760 | 85.648 | 11.676 | 4039.6 | 7.6091 | 760 |
| 107.04 | 9.3422 | 4092.3 | 7.7512 | 780 | 96.240 | 10.391 | 4089.8 | 7.7008 | 780 | 87.403 | 11.441 | 4087.4 | 7.6549 | 780 |
| 109.16 | 9.1605 | 4140.0 | 7.7962 | 800 | 98.158 | 10.188 | 4137.7 | 7.7458 | 800 | 89.152 | 11.217 | 4135.4 | 7.7001 | 800 |
| 111.28 | 8.9861 | 4188.0 | 7.8404 | 820 | 100.07 | 9.9929 | 4185.8 | 7.7902 | 820 | 90.898 | 11.001 | 4183.6 | 7.7446 | 820 |
| 113.40 | 8.8186 | 4236.2 | 7.8841 | 840 | 101.98 | 9.8058 | 4234.1 | 7.8340 | 840 | 92.640 | 10.795 | 4232.0 | 7.7884 | 840 |
| 115.51 | 8.6574 | 4284.6 | 7.9272 | 860 | 103.89 | 9.6259 | 4282.6 | 7.8771 | 860 | 94.378 | 10.596 | 4280.6 | 7.8317 | 860 |
| 117.62 | 8.5023 | 4333.2 | 7.9698 | 880 | 105.79 | 9.4528 | 4331.3 | 7.9198 | 880 | 96.112 | 10.404 | 4329.4 | 7.8744 | 880 |
| 119.72 | 8.3528 | 4382.1 | 8.0118 | 900 | 107.69 | 9.2861 | 4380.2 | 7.9618 | 900 | 97.844 | 10.220 | 4378.4 | 7.9166 | 900 |
| 121.82 | 8.2087 | 4431.1 | 8.0533 | 920 | 109.58 | 9.1254 | 4429.4 | 8.0034 | 920 | 99.573 | 10.043 | 4427.7 | 7.9582 | 920 |
| 123.92 | 8.0697 | 4480.5 | 8.0942 | 940 | 111.48 | 8.9703 | 4478.8 | 8.0445 | 940 | 101.30 | 9.8718 | 4477.1 | 7.9993 | 940 |
| 126.02 | 7.9355 | 4530.0 | 8.1348 | 960 | 113.37 | 8.8207 | 4528.4 | 8.0850 | 960 | 103.02 | 9.7066 | 4526.8 | 8.0399 | 960 |
| 128.11 | 7.8057 | 4579.8 | 8.1748 | 980 | 115.26 | 8.6761 | 4578.3 | 8.1251 | 980 | 104.74 | 9.5471 | 4576.7 | 8.0801 | 980 |
| 130.20 | 7.6803 | 4629.8 | 8.2144 | 1000 | 117.15 | 8.5364 | 4628.3 | 8.1648 | 1000 | 106.46 | 9.3930 | 4626.9 | 8.1198 | 1000 |
| 140.64 | 7.1106 | 4883.2 | 8.4060 | 1100 | 126.55 | 7.9018 | 4882.0 | 8.3566 | 1100 | 115.03 | 8.6933 | 4880.9 | 8.3118 | 1100 |
| 151.03 | 6.6211 | 5142.2 | 8.5880 | 1200 | 135.92 | 7.3571 | 5141.2 | 8.5388 | 1200 | 123.56 | 8.0931 | 5140.3 | 8.4941 | 1200 |
| 161.40 | 6.1957 | 5406.4 | 8.7615 | 1300 | 145.27 | 6.8838 | 5405.7 | 8.7124 | 1300 | 132.07 | 7.5719 | 5404.9 | 8.6679 | 1300 |
| 171.75 | 5.8224 | 5675.6 | 8.9274 | 1400 | 154.59 | 6.4687 | 5675.0 | 8.8784 | 1400 | 140.55 | 7.1148 | 5674.4 | 8.8340 | 1400 |
| 182.08 | 5.4920 | 5949.4 | 9.0863 | 1500 | 163.90 | 6.1014 | 5948.9 | 9.0374 | 1500 | 149.02 | 6.7106 | 5948.4 | 8.9930 | 1500 |
| 192.40 | 5.1974 | 6227.5 | 9.2389 | 1600 | 173.19 | 5.7739 | 6227.1 | 9.1900 | 1600 | 157.47 | 6.3502 | 6226.7 | 9.1457 | 1600 |
| 213.01 | 4.6945 | 6795.0 | 9.5267 | 1800 | 191.75 | 5.2151 | 6794.8 | 9.4779 | 1800 | 174.36 | 5.7354 | 6794.5 | 9.4337 | 1800 |
| 233.60 | 4.2808 | 7375.9 | 9.7942 | 2000 | 210.29 | 4.7554 | 7375.8 | 9.7454 | 2000 | 191.21 | 5.2298 | 7375.7 | 9.7012 | 2000 |

Table 3. Compressed Water and Superheated Steam (continued)

| 6.0 MPa ($t_s = 275.585\text{ }^{\circ}\text{C}$) | | | | | $t, ^{\circ}\text{C}$ | 6.5 MPa ($t_s = 280.858\text{ }^{\circ}\text{C}$) | | | | | $t, ^{\circ}\text{C}$ | 7.0 MPa ($t_s = 285.829\text{ }^{\circ}\text{C}$) | | | | |
|---|---------|--------|----------|------------|-----------------------|---|---------|--------|----------|------------|-----------------------|---|---------|--------|----------|--|
| v | ρ | h | s | | | v | ρ | h | s | | | v | ρ | h | s | |
| 1.319 26 | 758.00 | 1213.9 | 3.0278 | | $t_s(\text{L})$ | 1.335 56 | 748.75 | 1241.4 | 3.0764 | | $t_s(\text{L})$ | 1.351 86 | 739.72 | 1267.7 | 3.1224 | |
| 32.448 | 30.818 | 2784.6 | 5.8901 | | $t_s(\text{V})$ | 29.727 | 33.640 | 2778.9 | 5.8516 | | $t_s(\text{V})$ | 27.378 | 36.525 | 2772.6 | 5.8148 | |
| 0.997 18 | 1002.82 | 6.04 | 0.000 19 | 0 | | 0.996 94 | 1003.07 | 6.55 | 0.000 21 | 0 | | 0.996 69 | 1003.32 | 7.05 | 0.000 23 | |
| 0.997 16 | 1002.85 | 26.97 | 0.076 11 | 5 | | 0.996 92 | 1003.09 | 27.46 | 0.076 09 | 5 | | 0.996 68 | 1003.33 | 27.96 | 0.076 07 | |
| 0.997 50 | 1002.50 | 47.85 | 0.150 52 | 10 | | 0.997 27 | 1002.74 | 48.34 | 0.150 47 | 10 | | 0.997 03 | 1002.98 | 48.82 | 0.150 41 | |
| 0.998 16 | 1001.84 | 68.71 | 0.223 53 | 15 | | 0.997 93 | 1002.07 | 69.18 | 0.223 45 | 15 | | 0.997 71 | 1002.30 | 69.66 | 0.223 36 | |
| 0.999 11 | 1000.89 | 89.54 | 0.295 22 | 20 | | 0.998 88 | 1001.12 | 90.01 | 0.295 11 | 20 | | 0.998 66 | 1001.34 | 90.48 | 0.295 00 | |
| 1.000 31 | 999.69 | 110.37 | 0.365 66 | 25 | | 1.000 09 | 999.91 | 110.83 | 0.365 53 | 25 | | 0.999 86 | 1000.14 | 111.29 | 0.365 40 | |
| 1.001 74 | 998.26 | 131.19 | 0.434 92 | 30 | | 1.001 52 | 998.48 | 131.64 | 0.434 76 | 30 | | 1.001 30 | 998.70 | 132.10 | 0.434 61 | |
| 1.003 39 | 996.62 | 152.01 | 0.503 04 | 35 | | 1.003 17 | 996.84 | 152.46 | 0.502 86 | 35 | | 1.002 95 | 997.06 | 152.91 | 0.502 69 | |
| 1.005 24 | 994.79 | 172.84 | 0.570 07 | 40 | | 1.005 02 | 995.01 | 173.28 | 0.569 88 | 40 | | 1.004 80 | 995.22 | 173.72 | 0.569 68 | |
| 1.007 28 | 992.78 | 193.66 | 0.636 06 | 45 | | 1.007 06 | 992.99 | 194.10 | 0.635 85 | 45 | | 1.006 84 | 993.21 | 194.54 | 0.635 63 | |
| 1.009 50 | 990.59 | 214.50 | 0.701 04 | 50 | | 1.009 28 | 990.81 | 214.93 | 0.700 81 | 50 | | 1.009 06 | 991.02 | 215.36 | 0.700 58 | |
| 1.011 89 | 988.25 | 235.34 | 0.765 05 | 55 | | 1.011 67 | 988.47 | 235.77 | 0.764 80 | 55 | | 1.011 45 | 988.68 | 236.19 | 0.764 56 | |
| 1.014 45 | 985.76 | 256.20 | 0.828 12 | 60 | | 1.014 22 | 985.97 | 256.62 | 0.827 86 | 60 | | 1.014 00 | 986.19 | 257.04 | 0.827 60 | |
| 1.017 17 | 983.12 | 277.07 | 0.890 29 | 65 | | 1.016 94 | 983.34 | 277.48 | 0.890 01 | 65 | | 1.016 72 | 983.56 | 277.89 | 0.889 73 | |
| 1.020 04 | 980.35 | 297.95 | 0.951 59 | 70 | | 1.019 82 | 980.57 | 298.35 | 0.951 29 | 70 | | 1.019 59 | 980.79 | 298.76 | 0.951 00 | |
| 1.023 07 | 977.45 | 318.84 | 1.0120 | 75 | | 1.022 84 | 977.67 | 319.24 | 1.0117 | 75 | | 1.022 62 | 977.88 | 319.65 | 1.0114 | |
| 1.026 26 | 974.42 | 339.75 | 1.0717 | 80 | | 1.026 02 | 974.64 | 340.15 | 1.0713 | 80 | | 1.025 79 | 974.86 | 340.55 | 1.0710 | |
| 1.029 59 | 971.26 | 360.68 | 1.1305 | 85 | | 1.029 35 | 971.48 | 361.07 | 1.1302 | 85 | | 1.029 12 | 971.71 | 361.47 | 1.1298 | |
| 1.033 07 | 967.99 | 381.63 | 1.1886 | 90 | | 1.032 83 | 968.21 | 382.02 | 1.1883 | 90 | | 1.032 59 | 968.44 | 382.41 | 1.1879 | |
| 1.036 70 | 964.60 | 402.60 | 1.2460 | 95 | | 1.036 45 | 964.83 | 402.99 | 1.2456 | 95 | | 1.036 21 | 965.05 | 403.37 | 1.2452 | |
| 1.040 48 | 961.10 | 423.60 | 1.3026 | 100 | | 1.040 23 | 961.33 | 423.98 | 1.3022 | 100 | | 1.039 98 | 961.56 | 424.36 | 1.3019 | |
| 1.044 41 | 957.48 | 444.63 | 1.3586 | 105 | | 1.044 15 | 957.72 | 445.00 | 1.3582 | 105 | | 1.043 90 | 957.95 | 445.37 | 1.3578 | |
| 1.048 48 | 953.76 | 465.68 | 1.4139 | 110 | | 1.048 22 | 954.00 | 466.05 | 1.4135 | 110 | | 1.047 96 | 954.23 | 466.41 | 1.4131 | |
| 1.052 71 | 949.93 | 486.77 | 1.4686 | 115 | | 1.052 45 | 950.17 | 487.13 | 1.4682 | 115 | | 1.052 18 | 950.41 | 487.49 | 1.4677 | |
| 1.057 10 | 945.99 | 507.90 | 1.5227 | 120 | | 1.056 82 | 946.23 | 508.25 | 1.5222 | 120 | | 1.056 55 | 946.48 | 508.61 | 1.5218 | |
| 1.061 64 | 941.94 | 529.06 | 1.5762 | 125 | | 1.061 36 | 942.19 | 529.41 | 1.5757 | 125 | | 1.061 08 | 942.44 | 529.76 | 1.5753 | |
| 1.066 34 | 937.79 | 550.27 | 1.6291 | 130 | | 1.066 05 | 938.04 | 550.61 | 1.6286 | 130 | | 1.065 76 | 938.30 | 550.95 | 1.6282 | |
| 1.071 20 | 933.53 | 571.53 | 1.6815 | 135 | | 1.070 91 | 933.79 | 571.86 | 1.6810 | 135 | | 1.070 61 | 934.05 | 572.19 | 1.6805 | |
| 1.076 24 | 929.16 | 592.83 | 1.7334 | 140 | | 1.075 93 | 929.43 | 593.16 | 1.7329 | 140 | | 1.075 62 | 929.69 | 593.48 | 1.7324 | |
| 1.081 44 | 924.69 | 614.19 | 1.7848 | 145 | | 1.081 12 | 924.96 | 614.51 | 1.7842 | 145 | | 1.080 81 | 925.24 | 614.83 | 1.7837 | |
| 1.086 82 | 920.11 | 635.61 | 1.8357 | 150 | | 1.086 49 | 920.39 | 635.92 | 1.8351 | 150 | | 1.086 17 | 920.67 | 636.23 | 1.8346 | |
| 1.092 39 | 915.43 | 657.09 | 1.8862 | 155 | | 1.092 05 | 915.71 | 657.39 | 1.8856 | 155 | | 1.091 71 | 916.00 | 657.69 | 1.8850 | |
| 1.098 14 | 910.63 | 678.63 | 1.9362 | 160 | | 1.097 79 | 910.92 | 678.93 | 1.9356 | 160 | | 1.097 44 | 911.21 | 679.22 | 1.9350 | |
| 1.104 09 | 905.72 | 700.25 | 1.9858 | 165 | | 1.103 73 | 906.02 | 700.54 | 1.9852 | 165 | | 1.103 36 | 906.32 | 700.83 | 1.9846 | |
| 1.110 25 | 900.70 | 721.95 | 2.0351 | 170 | | 1.109 87 | 901.01 | 722.23 | 2.0344 | 170 | | 1.109 49 | 901.31 | 722.51 | 2.0338 | |
| 1.116 62 | 895.56 | 743.73 | 2.0839 | 175 | | 1.116 23 | 895.88 | 744.00 | 2.0833 | 175 | | 1.115 83 | 896.19 | 744.27 | 2.0826 | |
| 1.123 21 | 890.30 | 765.60 | 2.1325 | 180 | | 1.122 80 | 890.63 | 765.86 | 2.1318 | 180 | | 1.122 39 | 890.95 | 766.11 | 2.1311 | |
| 1.130 04 | 884.92 | 787.56 | 2.1807 | 185 | | 1.129 62 | 885.26 | 787.81 | 2.1800 | 185 | | 1.129 19 | 885.59 | 788.06 | 2.1793 | |
| 1.137 12 | 879.41 | 809.63 | 2.2286 | 190 | | 1.136 67 | 879.76 | 809.86 | 2.2278 | 190 | | 1.136 23 | 880.11 | 810.10 | 2.2271 | |
| 1.144 46 | 873.78 | 831.80 | 2.2762 | 195 | | 1.143 99 | 874.13 | 832.03 | 2.2754 | 195 | | 1.143 52 | 874.49 | 832.25 | 2.2747 | |
| 1.152 07 | 868.00 | 854.09 | 2.3235 | 200 | | 1.151 58 | 868.37 | 854.30 | 2.3228 | 200 | | 1.151 09 | 868.74 | 854.51 | 2.3220 | |
| 1.168 18 | 856.03 | 899.06 | 2.4176 | 210 | | 1.167 64 | 856.43 | 899.24 | 2.4168 | 210 | | 1.167 10 | 856.82 | 899.42 | 2.4159 | |
| 1.185 62 | 843.44 | 944.61 | 2.5109 | 220 | | 1.185 01 | 843.87 | 944.75 | 2.5100 | 220 | | 1.184 41 | 844.30 | 944.90 | 2.5091 | |
| 1.204 57 | 830.17 | 990.82 | 2.6037 | 230 | | 1.203 89 | 830.64 | 990.93 | 2.6027 | 230 | | 1.203 21 | 831.11 | 991.04 | 2.6017 | |
| 1.225 28 | 816.14 | 1037.8 | 2.6961 | 240 | | 1.224 51 | 816.65 | 1037.9 | 2.6951 | 240 | | 1.223 74 | 817.16 | 1037.9 | 2.6940 | |
| 1.248 07 | 801.23 | 1085.7 | 2.7886 | 250 | | 1.247 19 | 801.80 | 1085.7 | 2.7874 | 250 | | 1.246 31 | 802.37 | 1085.7 | 2.7862 | |
| 1.273 37 | 785.32 | 1134.7 | 2.8814 | 260 | | 1.272 34 | 785.95 | 1134.7 | 2.8801 | 260 | | 1.271 31 | 786.59 | 1134.6 | 2.8788 | |
| 1.301 77 | 768.19 | 1185.1 | 2.9750 | 270 | | 1.300 54 | 768.91 | 1184.9 | 2.9735 | 270 | | 1.299 32 | 769.63 | 1184.8 | 2.9720 | |
| 33.199 | 30.121 | 2805.3 | 5.9277 | 280 | | 1.332 60 | 750.41 | 1236.8 | 3.0682 | 280 | | 1.331 12 | 751.25 | 1236.6 | 3.0665 | |
| 34.762 | 28.767 | 2847.5 | 6.0034 | 290 | | 31.180 | 32.072 | 2822.0 | 5.9289 | 290 | | 28.043 | 35.659 | 2794.1 | 5.8529 | |

Table 3. Compressed Water and Superheated Steam (continued)

| 6.0 MPa ($t_s = 275.585^\circ\text{C}$) | | | | | $t, ^\circ\text{C}$ | 6.5 MPa ($t_s = 280.858^\circ\text{C}$) | | | | | $t, ^\circ\text{C}$ | 7.0 MPa ($t_s = 285.829^\circ\text{C}$) | | | | |
|---|--------|--------|--------|-------------|---------------------|---|--------|--------|-------------|--------|---------------------|---|--------|--|--|--|
| v | ρ | h | s | v | | ρ | h | s | v | ρ | | h | s | | | |
| 36.189 | 27.632 | 2885.5 | 6.0703 | 300 | 32.607 | 30.668 | 2863.5 | 6.0019 | 300 | 29.492 | 33.907 | 2839.9 | 5.9337 | | | |
| 37.521 | 26.652 | 2920.6 | 6.1310 | 310 | 33.920 | 29.481 | 2901.2 | 6.0671 | 310 | 30.801 | 32.466 | 2880.6 | 6.0041 | | | |
| 38.780 | 25.786 | 2953.6 | 6.1871 | 320 | 35.149 | 28.450 | 2936.2 | 6.1266 | 320 | 32.012 | 31.238 | 2917.9 | 6.0675 | | | |
| 39.981 | 25.012 | 2984.9 | 6.2395 | 330 | 36.313 | 27.538 | 2969.1 | 6.1817 | 330 | 33.149 | 30.166 | 2952.7 | 6.1257 | | | |
| 41.135 | 24.310 | 3014.9 | 6.2888 | 340 | 37.425 | 26.720 | 3000.5 | 6.2333 | 340 | 34.229 | 29.215 | 2985.6 | 6.1797 | | | |
| 42.251 | 23.668 | 3043.9 | 6.3357 | 350 | 38.494 | 25.978 | 3030.6 | 6.2820 | 350 | 35.262 | 28.359 | 3016.9 | 6.2304 | | | |
| 43.333 | 23.077 | 3072.0 | 6.3804 | 360 | 39.528 | 25.298 | 3059.7 | 6.3283 | 360 | 36.257 | 27.581 | 3047.0 | 6.2784 | | | |
| 44.388 | 22.529 | 3099.4 | 6.4233 | 370 | 40.532 | 24.672 | 3087.9 | 6.3725 | 370 | 37.219 | 26.868 | 3076.2 | 6.3241 | | | |
| 45.418 | 22.018 | 3126.1 | 6.4646 | 380 | 41.511 | 24.090 | 3115.4 | 6.4150 | 380 | 38.155 | 26.209 | 3104.5 | 6.3677 | | | |
| 46.428 | 21.539 | 3152.4 | 6.5045 | 390 | 42.467 | 23.547 | 3142.4 | 6.4559 | 390 | 39.067 | 25.597 | 3132.1 | 6.4097 | | | |
| 47.419 | 21.088 | 3178.2 | 6.5432 | 400 | 43.404 | 23.039 | 3168.8 | 6.4954 | 400 | 39.958 | 25.026 | 3159.2 | 6.4502 | | | |
| 48.395 | 20.663 | 3203.7 | 6.5807 | 410 | 44.325 | 22.561 | 3194.8 | 6.5338 | 410 | 40.832 | 24.491 | 3185.7 | 6.4894 | | | |
| 49.355 | 20.261 | 3228.9 | 6.6173 | 420 | 45.230 | 22.109 | 3220.4 | 6.5710 | 420 | 41.690 | 23.987 | 3211.8 | 6.5273 | | | |
| 50.303 | 19.879 | 3253.8 | 6.6530 | 430 | 46.122 | 21.682 | 3245.8 | 6.6073 | 430 | 42.534 | 23.510 | 3237.6 | 6.5643 | | | |
| 51.240 | 19.516 | 3278.4 | 6.6878 | 440 | 47.002 | 21.276 | 3270.8 | 6.6427 | 440 | 43.366 | 23.060 | 3263.1 | 6.6002 | | | |
| 52.166 | 19.170 | 3302.9 | 6.7219 | 450 | 47.871 | 20.890 | 3295.6 | 6.6773 | 450 | 44.187 | 22.631 | 3288.3 | 6.6353 | | | |
| 53.083 | 18.839 | 3327.2 | 6.7552 | 460 | 48.730 | 20.521 | 3320.3 | 6.7111 | 460 | 44.997 | 22.224 | 3313.3 | 6.6696 | | | |
| 53.991 | 18.522 | 3351.4 | 6.7880 | 470 | 49.581 | 20.169 | 3344.7 | 6.7442 | 470 | 45.799 | 21.835 | 3338.0 | 6.7032 | | | |
| 54.891 | 18.218 | 3375.4 | 6.8201 | 480 | 50.423 | 19.832 | 3369.0 | 6.7767 | 480 | 46.592 | 21.463 | 3362.6 | 6.7360 | | | |
| 55.784 | 17.926 | 3399.3 | 6.8516 | 490 | 51.259 | 19.509 | 3393.2 | 6.8086 | 490 | 47.378 | 21.107 | 3387.1 | 6.7683 | | | |
| 56.671 | 17.646 | 3423.1 | 6.8826 | 500 | 52.087 | 19.199 | 3417.3 | 6.8399 | 500 | 48.157 | 20.765 | 3411.4 | 6.8000 | | | |
| 58.426 | 17.116 | 3470.5 | 6.9432 | 520 | 53.726 | 18.613 | 3465.1 | 6.9011 | 520 | 49.696 | 20.122 | 3459.7 | 6.8617 | | | |
| 60.161 | 16.622 | 3517.7 | 7.0020 | 540 | 55.344 | 18.069 | 3512.7 | 6.9603 | 540 | 51.214 | 19.526 | 3507.7 | 6.9214 | | | |
| 61.877 | 16.161 | 3564.8 | 7.0591 | 560 | 56.943 | 17.561 | 3560.2 | 7.0179 | 560 | 52.713 | 18.971 | 3555.5 | 6.9794 | | | |
| 63.578 | 15.729 | 3611.8 | 7.1149 | 580 | 58.526 | 17.086 | 3607.4 | 7.0740 | 580 | 54.196 | 18.452 | 3603.1 | 7.0359 | | | |
| 65.265 | 15.322 | 3658.7 | 7.1693 | 600 | 60.096 | 16.640 | 3654.7 | 7.1288 | 600 | 55.665 | 17.965 | 3650.6 | 7.0910 | | | |
| 66.941 | 14.939 | 3705.7 | 7.2224 | 620 | 61.653 | 16.220 | 3701.9 | 7.1822 | 620 | 57.121 | 17.507 | 3698.1 | 7.1447 | | | |
| 68.605 | 14.576 | 3752.7 | 7.2745 | 640 | 63.200 | 15.823 | 3749.1 | 7.2345 | 640 | 58.567 | 17.074 | 3745.5 | 7.1973 | | | |
| 70.260 | 14.233 | 3799.8 | 7.3255 | 660 | 64.737 | 15.447 | 3796.4 | 7.2858 | 660 | 60.003 | 16.666 | 3793.0 | 7.2487 | | | |
| 71.907 | 13.907 | 3847.0 | 7.3755 | 680 | 66.266 | 15.091 | 3843.8 | 7.3360 | 680 | 61.431 | 16.279 | 3840.6 | 7.2992 | | | |
| 73.545 | 13.597 | 3894.3 | 7.4246 | 700 | 67.786 | 14.752 | 3891.3 | 7.3853 | 700 | 62.850 | 15.911 | 3888.2 | 7.3486 | | | |
| 75.177 | 13.302 | 3941.7 | 7.4729 | 720 | 69.300 | 14.430 | 3938.9 | 7.4337 | 720 | 64.263 | 15.561 | 3936.0 | 7.3972 | | | |
| 76.803 | 13.020 | 3989.3 | 7.5203 | 740 | 70.808 | 14.123 | 3986.6 | 7.4813 | 740 | 65.669 | 15.228 | 3983.9 | 7.4450 | | | |
| 78.423 | 12.751 | 4037.0 | 7.5670 | 760 | 72.310 | 13.829 | 4034.5 | 7.5281 | 760 | 67.070 | 14.910 | 4031.9 | 7.4919 | | | |
| 80.038 | 12.494 | 4085.0 | 7.6129 | 780 | 73.806 | 13.549 | 4082.5 | 7.5741 | 780 | 68.465 | 14.606 | 4080.1 | 7.5381 | | | |
| 81.648 | 12.248 | 4133.1 | 7.6582 | 800 | 75.298 | 13.281 | 4130.8 | 7.6195 | 800 | 69.855 | 14.315 | 4128.4 | 7.5836 | | | |
| 83.254 | 12.011 | 4181.4 | 7.7028 | 820 | 76.786 | 13.023 | 4179.2 | 7.6642 | 820 | 71.242 | 14.037 | 4177.0 | 7.6284 | | | |
| 84.856 | 11.785 | 4229.9 | 7.7467 | 840 | 78.269 | 12.776 | 4227.8 | 7.7083 | 840 | 72.624 | 13.770 | 4225.7 | 7.6725 | | | |
| 86.454 | 11.567 | 4278.6 | 7.7901 | 860 | 79.749 | 12.539 | 4276.6 | 7.7517 | 860 | 74.003 | 13.513 | 4274.6 | 7.7160 | | | |
| 88.049 | 11.357 | 4327.5 | 7.8329 | 880 | 81.226 | 12.311 | 4325.6 | 7.7946 | 880 | 75.378 | 13.267 | 4323.7 | 7.7590 | | | |
| 89.641 | 11.156 | 4376.6 | 7.8751 | 900 | 82.699 | 12.092 | 4374.8 | 7.8369 | 900 | 76.750 | 13.029 | 4373.0 | 7.8014 | | | |
| 91.230 | 10.961 | 4425.9 | 7.9168 | 920 | 84.170 | 11.881 | 4424.2 | 7.8786 | 920 | 78.119 | 12.801 | 4422.4 | 7.8432 | | | |
| 92.816 | 10.774 | 4475.5 | 7.9580 | 940 | 85.638 | 11.677 | 4473.8 | 7.9199 | 940 | 79.485 | 12.581 | 4472.1 | 7.8845 | | | |
| 94.400 | 10.593 | 4525.2 | 7.9987 | 960 | 87.103 | 11.481 | 4523.6 | 7.9606 | 960 | 80.849 | 12.369 | 4522.1 | 7.9253 | | | |
| 95.981 | 10.419 | 4575.2 | 8.0389 | 980 | 88.566 | 11.291 | 4573.7 | 8.0009 | 980 | 82.211 | 12.164 | 4572.2 | 7.9656 | | | |
| 97.560 | 10.250 | 4625.4 | 8.0786 | 1000 | 90.027 | 11.108 | 4624.0 | 8.0407 | 1000 | 83.571 | 11.966 | 4622.5 | 8.0055 | | | |
| 105.43 | 9.4850 | 4879.7 | 8.2709 | 1100 | 97.305 | 10.277 | 4878.5 | 8.2331 | 1100 | 90.341 | 11.069 | 4877.3 | 8.1981 | | | |
| 113.26 | 8.8291 | 5139.3 | 8.4534 | 1200 | 104.55 | 9.5652 | 5138.4 | 8.4158 | 1200 | 97.074 | 10.301 | 5137.4 | 8.3810 | | | |
| 121.07 | 8.2599 | 5404.1 | 8.6272 | 1300 | 111.76 | 8.9478 | 5403.3 | 8.5898 | 1300 | 103.78 | 9.6357 | 5402.6 | 8.5551 | | | |
| 128.85 | 7.7609 | 5673.7 | 8.7934 | 1400 | 118.95 | 8.4068 | 5673.1 | 8.7560 | 1400 | 110.47 | 9.0525 | 5672.5 | 8.7214 | | | |
| 136.62 | 7.3196 | 5947.9 | 8.9525 | 1500 | 126.13 | 7.9284 | 5947.4 | 8.9152 | 1500 | 117.14 | 8.5371 | 5946.9 | 8.8807 | | | |
| 144.38 | 6.9264 | 6226.3 | 9.1052 | 1600 | 133.29 | 7.5023 | 6225.9 | 9.0680 | 1600 | 123.79 | 8.0780 | 6225.5 | 9.0335 | | | |
| 159.86 | 6.2555 | 6794.3 | 9.3933 | 1800 | 147.59 | 6.7754 | 6794.1 | 9.3562 | 1800 | 137.08 | 7.2951 | 6793.8 | 9.3217 | | | |
| 175.32 | 5.7040 | 7375.6 | 9.6609 | 2000 | 161.87 | 6.1779 | 7375.4 | 9.6238 | 2000 | 150.34 | 6.6517 | 7375.3 | 9.5895 | | | |

Table 3. Compressed Water and Superheated Steam (continued)

| 7.5 MPa ($t_s = 290.535\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 8.0 MPa ($t_s = 295.008\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 9.0 MPa ($t_s = 303.345\text{ }^{\circ}\text{C}$) | | | |
|---|---------|--------|----------|-------------------------|---|---------|--------|----------|-------------------------|---|---------|--------|----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.368 21 | 730.88 | 1292.9 | 3.1662 | $t_s(\text{L})$ | 1.384 67 | 722.20 | 1317.3 | 3.2081 | $t_s(\text{L})$ | 1.418 11 | 705.16 | 1363.9 | 3.2870 |
| 25.330 | 39.479 | 2765.9 | 5.7793 | $t_s(\text{V})$ | 23.526 | 42.507 | 2758.7 | 5.7450 | $t_s(\text{V})$ | 20.490 | 48.804 | 2742.9 | 5.6791 |
| 0.996 44 | 1003.57 | 7.56 | 0.000 25 | 0 | 0.996 19 | 1003.82 | 8.06 | 0.000 27 | 0 | 0.995 69 | 1004.32 | 9.06 | 0.000 31 |
| 0.996 44 | 1003.57 | 28.45 | 0.076 05 | 5 | 0.996 20 | 1003.82 | 28.94 | 0.076 03 | 5 | 0.995 72 | 1004.30 | 29.93 | 0.075 99 |
| 0.996 80 | 1003.21 | 49.30 | 0.150 36 | 10 | 0.996 57 | 1003.45 | 49.79 | 0.150 31 | 10 | 0.996 10 | 1003.91 | 50.75 | 0.150 20 |
| 0.997 48 | 1002.53 | 70.13 | 0.223 28 | 15 | 0.997 25 | 1002.76 | 70.61 | 0.223 20 | 15 | 0.996 79 | 1003.22 | 71.56 | 0.223 03 |
| 0.998 43 | 1001.57 | 90.95 | 0.294 89 | 20 | 0.998 21 | 1001.80 | 91.41 | 0.294 78 | 20 | 0.997 76 | 1002.25 | 92.35 | 0.294 57 |
| 0.999 64 | 1000.36 | 111.75 | 0.365 26 | 25 | 0.999 42 | 1000.58 | 112.21 | 0.365 13 | 25 | 0.998 98 | 1001.02 | 113.13 | 0.364 86 |
| 1.001 08 | 998.92 | 132.55 | 0.434 45 | 30 | 1.000 86 | 999.14 | 133.01 | 0.434 30 | 30 | 1.000 42 | 999.58 | 133.91 | 0.433 99 |
| 1.002 73 | 997.28 | 153.35 | 0.502 51 | 35 | 1.002 51 | 997.49 | 153.80 | 0.502 34 | 35 | 1.002 08 | 997.93 | 154.70 | 0.501 99 |
| 1.004 58 | 995.44 | 174.16 | 0.569 49 | 40 | 1.004 37 | 995.65 | 174.60 | 0.569 29 | 40 | 1.003 93 | 996.08 | 175.48 | 0.568 90 |
| 1.006 62 | 993.42 | 194.97 | 0.635 42 | 45 | 1.006 40 | 993.64 | 195.41 | 0.635 21 | 45 | 1.005 97 | 994.07 | 196.28 | 0.634 78 |
| 1.008 84 | 991.24 | 215.79 | 0.700 35 | 50 | 1.008 62 | 991.45 | 216.22 | 0.700 12 | 50 | 1.008 19 | 991.88 | 217.08 | 0.699 66 |
| 1.011 23 | 988.90 | 236.62 | 0.764 31 | 55 | 1.011 01 | 989.11 | 237.04 | 0.764 06 | 55 | 1.010 57 | 989.54 | 237.89 | 0.763 57 |
| 1.013 78 | 986.41 | 257.46 | 0.827 33 | 60 | 1.013 56 | 986.62 | 257.88 | 0.827 07 | 60 | 1.013 12 | 987.05 | 258.71 | 0.826 54 |
| 1.016 50 | 983.77 | 278.31 | 0.889 45 | 65 | 1.016 27 | 983.99 | 278.72 | 0.889 17 | 65 | 1.015 83 | 984.42 | 279.55 | 0.888 62 |
| 1.019 37 | 981.00 | 299.17 | 0.950 70 | 70 | 1.019 14 | 981.22 | 299.58 | 0.950 41 | 70 | 1.018 69 | 981.65 | 300.40 | 0.949 82 |
| 1.022 39 | 978.10 | 320.05 | 1.0111 | 75 | 1.022 16 | 978.32 | 320.45 | 1.0108 | 75 | 1.021 70 | 978.76 | 321.26 | 1.0102 |
| 1.025 56 | 975.08 | 340.95 | 1.0707 | 80 | 1.025 33 | 975.30 | 341.34 | 1.0704 | 80 | 1.024 87 | 975.74 | 342.14 | 1.0697 |
| 1.028 88 | 971.93 | 361.86 | 1.1295 | 85 | 1.028 65 | 972.15 | 362.25 | 1.1292 | 85 | 1.028 18 | 972.59 | 363.04 | 1.1285 |
| 1.032 35 | 968.66 | 382.79 | 1.1876 | 90 | 1.032 11 | 968.89 | 383.18 | 1.1872 | 90 | 1.031 63 | 969.34 | 383.96 | 1.1865 |
| 1.035 97 | 965.28 | 403.75 | 1.2449 | 95 | 1.035 72 | 965.51 | 404.13 | 1.2445 | 95 | 1.035 24 | 965.96 | 404.90 | 1.2438 |
| 1.039 73 | 961.79 | 424.73 | 1.3015 | 100 | 1.039 48 | 962.02 | 425.11 | 1.3011 | 100 | 1.038 99 | 962.48 | 425.86 | 1.3003 |
| 1.043 64 | 958.18 | 445.74 | 1.3574 | 105 | 1.043 39 | 958.42 | 446.11 | 1.3570 | 105 | 1.042 88 | 958.88 | 446.85 | 1.3562 |
| 1.047 70 | 954.47 | 466.78 | 1.4127 | 110 | 1.047 44 | 954.71 | 467.15 | 1.4123 | 110 | 1.046 93 | 955.18 | 467.88 | 1.4114 |
| 1.051 91 | 950.65 | 487.85 | 1.4673 | 115 | 1.051 65 | 950.89 | 488.21 | 1.4669 | 115 | 1.051 12 | 951.37 | 488.93 | 1.4660 |
| 1.056 28 | 946.72 | 508.96 | 1.5213 | 120 | 1.056 00 | 946.97 | 509.31 | 1.5209 | 120 | 1.055 46 | 947.45 | 510.02 | 1.5200 |
| 1.060 80 | 942.69 | 530.11 | 1.5748 | 125 | 1.060 52 | 942.94 | 530.45 | 1.5743 | 125 | 1.059 96 | 943.43 | 531.15 | 1.5734 |
| 1.065 47 | 938.55 | 551.29 | 1.6277 | 130 | 1.065 19 | 938.80 | 551.63 | 1.6272 | 130 | 1.064 61 | 939.31 | 552.32 | 1.6263 |
| 1.070 31 | 934.31 | 572.53 | 1.6800 | 135 | 1.070 02 | 934.57 | 572.86 | 1.6795 | 135 | 1.069 42 | 935.08 | 573.53 | 1.6786 |
| 1.075 32 | 929.96 | 593.81 | 1.7319 | 140 | 1.075 01 | 930.22 | 594.14 | 1.7313 | 140 | 1.074 40 | 930.75 | 594.79 | 1.7303 |
| 1.080 49 | 925.51 | 615.15 | 1.7832 | 145 | 1.080 17 | 925.78 | 615.47 | 1.7827 | 145 | 1.079 55 | 926.31 | 616.11 | 1.7816 |
| 1.085 84 | 920.95 | 636.54 | 1.8341 | 150 | 1.085 51 | 921.22 | 636.86 | 1.8335 | 150 | 1.084 87 | 921.77 | 637.48 | 1.8324 |
| 1.091 37 | 916.28 | 658.00 | 1.8845 | 155 | 1.091 03 | 916.56 | 658.30 | 1.8839 | 155 | 1.090 36 | 917.13 | 658.92 | 1.8828 |
| 1.097 09 | 911.50 | 679.52 | 1.9344 | 160 | 1.096 74 | 911.79 | 679.82 | 1.9339 | 160 | 1.096 04 | 912.37 | 680.41 | 1.9327 |
| 1.103 00 | 906.62 | 701.11 | 1.9840 | 165 | 1.102 64 | 906.92 | 701.40 | 1.9834 | 165 | 1.101 92 | 907.51 | 701.98 | 1.9822 |
| 1.109 11 | 901.62 | 722.78 | 2.0332 | 170 | 1.108 74 | 901.93 | 723.06 | 2.0326 | 170 | 1.107 99 | 902.53 | 723.62 | 2.0313 |
| 1.115 44 | 896.51 | 744.54 | 2.0820 | 175 | 1.115 05 | 896.82 | 744.80 | 2.0813 | 175 | 1.114 27 | 897.45 | 745.35 | 2.0801 |
| 1.121 99 | 891.28 | 766.37 | 2.1304 | 180 | 1.121 58 | 891.60 | 766.63 | 2.1298 | 180 | 1.120 77 | 892.24 | 767.15 | 2.1285 |
| 1.128 76 | 885.93 | 788.30 | 2.1786 | 185 | 1.128 34 | 886.26 | 788.55 | 2.1779 | 185 | 1.127 49 | 886.92 | 789.05 | 2.1765 |
| 1.135 78 | 880.45 | 810.34 | 2.2264 | 190 | 1.135 34 | 880.79 | 810.57 | 2.2257 | 190 | 1.134 46 | 881.48 | 811.05 | 2.2243 |
| 1.143 06 | 874.85 | 832.47 | 2.2739 | 195 | 1.142 59 | 875.20 | 832.70 | 2.2732 | 195 | 1.141 67 | 875.91 | 833.15 | 2.2717 |
| 1.150 60 | 869.11 | 854.73 | 2.3212 | 200 | 1.150 11 | 869.48 | 854.94 | 2.3205 | 200 | 1.149 15 | 870.21 | 855.37 | 2.3189 |
| 1.166 56 | 857.22 | 899.61 | 2.4151 | 210 | 1.166 03 | 857.61 | 899.79 | 2.4143 | 210 | 1.164 96 | 858.40 | 900.16 | 2.4126 |
| 1.183 81 | 844.73 | 945.05 | 2.5082 | 220 | 1.183 22 | 845.15 | 945.20 | 2.5073 | 220 | 1.182 03 | 846.00 | 945.50 | 2.5055 |
| 1.202 54 | 831.57 | 991.14 | 2.6007 | 230 | 1.201 87 | 832.03 | 991.25 | 2.5997 | 230 | 1.200 55 | 832.95 | 991.48 | 2.5978 |
| 1.222 98 | 817.67 | 1038.0 | 2.6929 | 240 | 1.222 22 | 818.18 | 1038.1 | 2.6919 | 240 | 1.220 72 | 819.19 | 1038.2 | 2.6897 |
| 1.245 43 | 802.93 | 1085.7 | 2.7851 | 250 | 1.244 57 | 803.49 | 1085.7 | 2.7839 | 250 | 1.242 85 | 804.60 | 1085.8 | 2.7815 |
| 1.270 30 | 787.22 | 1134.5 | 2.8775 | 260 | 1.269 29 | 787.84 | 1134.5 | 2.8761 | 260 | 1.267 30 | 789.08 | 1134.4 | 2.8736 |
| 1.298 12 | 770.35 | 1184.6 | 2.9705 | 270 | 1.296 93 | 771.05 | 1184.5 | 2.9690 | 270 | 1.294 58 | 772.45 | 1184.2 | 2.9661 |
| 1.329 67 | 752.07 | 1236.3 | 3.0648 | 280 | 1.328 23 | 752.88 | 1236.0 | 3.0631 | 280 | 1.325 40 | 754.49 | 1235.5 | 3.0598 |
| 1.366 09 | 732.02 | 1290.0 | 3.1610 | 290 | 1.364 30 | 732.98 | 1289.6 | 3.1590 | 290 | 1.360 80 | 734.86 | 1288.8 | 3.1552 |

Table 3. Compressed Water and Superheated Steam (continued)

| 7.5 MPa ($t_s = 290.535^\circ\text{C}$) | | | | | 8.0 MPa ($t_s = 295.008^\circ\text{C}$) | | | | | 9.0 MPa ($t_s = 303.345^\circ\text{C}$) | | | | |
|---|--------|--------|--------|---------------------|---|--------|--------|--------|---------------------|---|--------|--------|--------|---------------------|
| v | ρ | h | s | $t, ^\circ\text{C}$ | v | ρ | h | s | $t, ^\circ\text{C}$ | v | ρ | h | s | $t, ^\circ\text{C}$ |
| 26.742 | 37.394 | 2814.4 | 5.8646 | 300 | 24.279 | 41.188 | 2786.5 | 5.7937 | 300 | 1.402 39 | 713.07 | 1344.5 | 3.2533 | |
| 28.063 | 35.634 | 2858.8 | 5.9414 | 310 | 25.630 | 39.016 | 2835.4 | 5.8783 | 310 | 21.448 | 46.625 | 2782.7 | 5.7478 | |
| 29.268 | 34.167 | 2898.7 | 6.0093 | 320 | 26.840 | 37.258 | 2878.4 | 5.9515 | 320 | 22.708 | 44.036 | 2834.0 | 5.8350 | |
| 30.388 | 32.907 | 2935.5 | 6.0709 | 330 | 27.952 | 35.775 | 2917.6 | 6.0170 | 330 | 23.831 | 41.962 | 2879.0 | 5.9101 | |
| 31.444 | 31.802 | 2970.1 | 6.1277 | 340 | 28.992 | 34.493 | 2953.9 | 6.0768 | 340 | 24.859 | 40.228 | 2919.7 | 5.9771 | |
| 32.449 | 30.818 | 3002.8 | 6.1806 | 350 | 29.975 | 33.361 | 2988.1 | 6.1321 | 350 | 25.816 | 38.736 | 2957.3 | 6.0380 | |
| 33.412 | 29.930 | 3034.0 | 6.2304 | 360 | 30.912 | 32.350 | 3020.6 | 6.1838 | 360 | 26.718 | 37.428 | 2992.6 | 6.0942 | |
| 34.340 | 29.121 | 3064.1 | 6.2776 | 370 | 31.812 | 31.434 | 3051.8 | 6.2327 | 370 | 27.577 | 36.263 | 3026.1 | 6.1467 | |
| 35.239 | 28.378 | 3093.3 | 6.3225 | 380 | 32.681 | 30.599 | 3081.8 | 6.2790 | 380 | 28.399 | 35.212 | 3058.1 | 6.1961 | |
| 36.113 | 27.691 | 3121.7 | 6.3656 | 390 | 33.524 | 29.830 | 3111.0 | 6.3233 | 390 | 29.192 | 34.256 | 3089.0 | 6.2429 | |
| 36.966 | 27.052 | 3149.4 | 6.4071 | 400 | 34.344 | 29.117 | 3139.4 | 6.3658 | 400 | 29.960 | 33.378 | 3118.8 | 6.2876 | |
| 37.801 | 26.455 | 3176.5 | 6.4471 | 410 | 35.144 | 28.454 | 3167.1 | 6.4067 | 410 | 30.706 | 32.567 | 3147.9 | 6.3304 | |
| 38.619 | 25.894 | 3203.1 | 6.4858 | 420 | 35.928 | 27.834 | 3194.3 | 6.4462 | 420 | 31.433 | 31.813 | 3176.2 | 6.3716 | |
| 39.422 | 25.367 | 3229.4 | 6.5234 | 430 | 36.696 | 27.251 | 3221.0 | 6.4845 | 430 | 32.144 | 31.110 | 3203.9 | 6.4114 | |
| 40.212 | 24.868 | 3255.3 | 6.5600 | 440 | 37.451 | 26.702 | 3247.3 | 6.5217 | 440 | 32.841 | 30.450 | 3231.2 | 6.4499 | |
| 40.992 | 24.395 | 3280.9 | 6.5956 | 450 | 38.194 | 26.182 | 3273.3 | 6.5579 | 450 | 33.524 | 29.829 | 3258.0 | 6.4872 | |
| 41.760 | 23.946 | 3306.2 | 6.6304 | 460 | 38.926 | 25.690 | 3299.0 | 6.5931 | 460 | 34.197 | 29.243 | 3284.5 | 6.5235 | |
| 42.520 | 23.519 | 3331.3 | 6.6644 | 470 | 39.648 | 25.222 | 3324.4 | 6.6276 | 470 | 34.859 | 28.687 | 3310.6 | 6.5589 | |
| 43.270 | 23.110 | 3356.2 | 6.6977 | 480 | 40.362 | 24.776 | 3349.6 | 6.6613 | 480 | 35.512 | 28.160 | 3336.4 | 6.5935 | |
| 44.014 | 22.720 | 3380.9 | 6.7303 | 490 | 41.068 | 24.350 | 3374.7 | 6.6942 | 490 | 36.156 | 27.658 | 3362.0 | 6.6272 | |
| 44.750 | 22.347 | 3405.5 | 6.7623 | 500 | 41.767 | 23.942 | 3399.5 | 6.7266 | 500 | 36.793 | 27.179 | 3387.4 | 6.6603 | |
| 46.203 | 21.644 | 3454.2 | 6.8246 | 520 | 43.145 | 23.177 | 3448.7 | 6.7895 | 520 | 38.047 | 26.283 | 3437.6 | 6.7244 | |
| 47.634 | 20.993 | 3502.6 | 6.8848 | 540 | 44.501 | 22.471 | 3497.6 | 6.8503 | 540 | 39.278 | 25.460 | 3487.3 | 6.7862 | |
| 49.046 | 20.389 | 3550.8 | 6.9433 | 560 | 45.838 | 21.816 | 3546.0 | 6.9092 | 560 | 40.488 | 24.698 | 3536.5 | 6.8461 | |
| 50.442 | 19.825 | 3598.7 | 7.0001 | 580 | 47.158 | 21.205 | 3594.3 | 6.9664 | 580 | 41.682 | 23.991 | 3585.4 | 6.9041 | |
| 51.824 | 19.296 | 3646.5 | 7.0555 | 600 | 48.463 | 20.634 | 3642.4 | 7.0221 | 600 | 42.861 | 23.331 | 3634.1 | 6.9605 | |
| 53.193 | 18.799 | 3694.2 | 7.1096 | 620 | 49.756 | 20.098 | 3690.4 | 7.0764 | 620 | 44.027 | 22.713 | 3682.6 | 7.0154 | |
| 54.552 | 18.331 | 3741.9 | 7.1624 | 640 | 51.038 | 19.593 | 3738.3 | 7.1295 | 640 | 45.181 | 22.133 | 3731.0 | 7.0690 | |
| 55.900 | 17.889 | 3789.6 | 7.2141 | 660 | 52.310 | 19.117 | 3786.2 | 7.1814 | 660 | 46.326 | 21.586 | 3779.4 | 7.1214 | |
| 57.240 | 17.470 | 3837.4 | 7.2647 | 680 | 53.573 | 18.666 | 3834.2 | 7.2323 | 680 | 47.461 | 21.070 | 3827.7 | 7.1726 | |
| 58.572 | 17.073 | 3885.2 | 7.3144 | 700 | 54.828 | 18.239 | 3882.2 | 7.2821 | 700 | 48.589 | 20.581 | 3876.1 | 7.2229 | |
| 59.897 | 16.695 | 3933.1 | 7.3631 | 720 | 56.077 | 17.833 | 3930.3 | 7.3310 | 720 | 49.709 | 20.117 | 3924.5 | 7.2721 | |
| 61.215 | 16.336 | 3981.2 | 7.4110 | 740 | 57.318 | 17.446 | 3978.5 | 7.3791 | 740 | 50.823 | 19.676 | 3973.0 | 7.3205 | |
| 62.528 | 15.993 | 4029.3 | 7.4581 | 760 | 58.554 | 17.078 | 4026.8 | 7.4263 | 760 | 51.931 | 19.256 | 4021.6 | 7.3680 | |
| 63.836 | 15.665 | 4077.7 | 7.5044 | 780 | 59.785 | 16.727 | 4075.2 | 7.4727 | 780 | 53.034 | 18.856 | 4070.3 | 7.4147 | |
| 65.138 | 15.352 | 4126.1 | 7.5500 | 800 | 61.011 | 16.390 | 4123.8 | 7.5184 | 800 | 54.132 | 18.473 | 4119.1 | 7.4606 | |
| 66.437 | 15.052 | 4174.8 | 7.5949 | 820 | 62.233 | 16.069 | 4172.5 | 7.5635 | 820 | 55.226 | 18.108 | 4168.1 | 7.5058 | |
| 67.731 | 14.764 | 4223.6 | 7.6391 | 840 | 63.450 | 15.760 | 4221.5 | 7.6078 | 840 | 56.315 | 17.757 | 4217.3 | 7.5503 | |
| 69.022 | 14.488 | 4272.6 | 7.6828 | 860 | 64.664 | 15.465 | 4270.6 | 7.6515 | 860 | 57.401 | 17.421 | 4266.5 | 7.5942 | |
| 70.309 | 14.223 | 4321.7 | 7.7258 | 880 | 65.874 | 15.180 | 4319.8 | 7.6946 | 880 | 58.483 | 17.099 | 4316.0 | 7.6375 | |
| 71.593 | 13.968 | 4371.1 | 7.7682 | 900 | 67.082 | 14.907 | 4369.3 | 7.7371 | 900 | 59.562 | 16.789 | 4365.7 | 7.6802 | |
| 72.875 | 13.722 | 4420.7 | 7.8101 | 920 | 68.286 | 14.644 | 4419.0 | 7.7791 | 920 | 60.639 | 16.491 | 4415.5 | 7.7223 | |
| 74.153 | 13.486 | 4470.5 | 7.8515 | 940 | 69.488 | 14.391 | 4468.8 | 7.8206 | 940 | 61.712 | 16.204 | 4465.5 | 7.7639 | |
| 75.430 | 13.257 | 4520.5 | 7.8924 | 960 | 70.687 | 14.147 | 4518.9 | 7.8615 | 960 | 62.783 | 15.928 | 4515.7 | 7.8049 | |
| 76.703 | 13.037 | 4570.7 | 7.9327 | 980 | 71.884 | 13.911 | 4569.1 | 7.9019 | 980 | 63.852 | 15.661 | 4566.1 | 7.8454 | |
| 77.975 | 12.825 | 4621.1 | 7.9726 | 1000 | 73.079 | 13.684 | 4619.6 | 7.9419 | 1000 | 64.918 | 15.404 | 4616.7 | 7.8855 | |
| 84.306 | 11.862 | 4876.2 | 8.1655 | 1100 | 79.025 | 12.654 | 4875.0 | 8.1350 | 1100 | 70.224 | 14.240 | 4872.7 | 8.0790 | |
| 90.600 | 11.038 | 5136.5 | 8.3485 | 1200 | 84.934 | 11.774 | 5135.5 | 8.3181 | 1200 | 75.492 | 13.246 | 5133.6 | 8.2625 | |
| 96.866 | 10.323 | 5401.8 | 8.5227 | 1300 | 90.816 | 11.011 | 5401.0 | 8.4924 | 1300 | 80.733 | 12.387 | 5399.5 | 8.4370 | |
| 103.11 | 9.6981 | 5671.9 | 8.6891 | 1400 | 96.678 | 10.344 | 5671.2 | 8.6589 | 1400 | 85.954 | 11.634 | 5670.0 | 8.6037 | |
| 109.34 | 9.1456 | 5946.4 | 8.8485 | 1500 | 102.52 | 9.7539 | 5945.9 | 8.8184 | 1500 | 91.158 | 10.970 | 5944.9 | 8.7633 | |
| 115.56 | 8.6535 | 6225.1 | 9.0014 | 1600 | 108.36 | 9.2288 | 6224.7 | 8.9713 | 1600 | 96.350 | 10.379 | 6223.9 | 8.9163 | |
| 127.97 | 7.8145 | 6793.6 | 9.2897 | 1800 | 119.99 | 8.3338 | 6793.4 | 9.2597 | 1800 | 106.71 | 9.3716 | 6792.9 | 9.2049 | |
| 140.35 | 7.1252 | 7375.2 | 9.5575 | 2000 | 131.60 | 7.5986 | 7375.1 | 9.5275 | 2000 | 117.03 | 8.5446 | 7374.9 | 9.4729 | |

Table 3. Compressed Water and Superheated Steam (continued)

| 10 MPa ($t_s = 310.997\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 11 MPa ($t_s = 318.079\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 12 MPa ($t_s = 324.675\text{ }^{\circ}\text{C}$) | | | |
|--|---------|--------|----------|-------------------------|--|---------|--------|----------|-------------------------|--|---------|--------|----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.452 59 | 688.42 | 1408.1 | 3.3606 | $t_s(\text{L})$ | 1.488 51 | 671.81 | 1450.4 | 3.4303 | $t_s(\text{L})$ | 1.526 30 | 655.18 | 1491.5 | 3.4967 |
| 18.030 | 55.463 | 2725.5 | 5.6160 | $t_s(\text{V})$ | 15.990 | 62.541 | 2706.3 | 5.5545 | $t_s(\text{V})$ | 14.264 | 70.106 | 2685.4 | 5.4939 |
| 0.995 20 | 1004.82 | 10.07 | 0.000 34 | 0 | 0.994 71 | 1005.32 | 11.07 | 0.000 37 | 0 | 0.994 22 | 1005.81 | 12.07 | 0.000 39 |
| 0.995 24 | 1004.78 | 30.91 | 0.075 95 | 5 | 0.994 77 | 1005.26 | 31.89 | 0.075 90 | 5 | 0.994 29 | 1005.74 | 32.87 | 0.075 85 |
| 0.995 64 | 1004.38 | 51.72 | 0.150 09 | 10 | 0.995 17 | 1004.85 | 52.68 | 0.149 98 | 10 | 0.994 71 | 1005.32 | 53.64 | 0.149 87 |
| 0.996 34 | 1003.68 | 72.51 | 0.222 87 | 15 | 0.995 88 | 1004.13 | 73.45 | 0.222 70 | 15 | 0.995 43 | 1004.59 | 74.40 | 0.222 52 |
| 0.997 31 | 1002.69 | 93.28 | 0.294 35 | 20 | 0.996 87 | 1003.14 | 94.21 | 0.294 12 | 20 | 0.996 42 | 1003.59 | 95.14 | 0.293 90 |
| 0.998 54 | 1001.47 | 114.05 | 0.364 60 | 25 | 0.998 10 | 1001.91 | 114.97 | 0.364 33 | 25 | 0.997 66 | 1002.35 | 115.89 | 0.364 06 |
| 0.999 98 | 1000.02 | 134.82 | 0.433 68 | 30 | 0.999 55 | 1000.45 | 135.72 | 0.433 37 | 30 | 0.999 11 | 1000.89 | 136.63 | 0.433 05 |
| 1.001 64 | 998.36 | 155.59 | 0.501 63 | 35 | 1.001 21 | 998.79 | 156.48 | 0.501 28 | 35 | 1.000 78 | 999.22 | 157.37 | 0.500 93 |
| 1.003 50 | 996.52 | 176.36 | 0.568 51 | 40 | 1.003 06 | 996.94 | 177.25 | 0.568 12 | 40 | 1.002 63 | 997.37 | 178.13 | 0.567 73 |
| 1.005 54 | 994.49 | 197.15 | 0.634 36 | 45 | 1.005 10 | 994.92 | 198.02 | 0.633 93 | 45 | 1.004 67 | 995.35 | 198.89 | 0.633 50 |
| 1.007 75 | 992.31 | 217.94 | 0.699 20 | 50 | 1.007 32 | 992.73 | 218.80 | 0.698 74 | 50 | 1.006 89 | 993.16 | 219.66 | 0.698 28 |
| 1.010 14 | 989.97 | 238.74 | 0.763 07 | 55 | 1.009 70 | 990.39 | 239.59 | 0.762 58 | 55 | 1.009 27 | 990.82 | 240.44 | 0.762 09 |
| 1.012 68 | 987.48 | 259.55 | 0.826 02 | 60 | 1.012 24 | 987.90 | 260.39 | 0.825 49 | 60 | 1.011 81 | 988.33 | 261.23 | 0.824 97 |
| 1.015 39 | 984.85 | 280.38 | 0.888 06 | 65 | 1.014 94 | 985.28 | 281.20 | 0.887 50 | 65 | 1.014 50 | 985.70 | 282.03 | 0.886 95 |
| 1.018 24 | 982.08 | 301.21 | 0.949 23 | 70 | 1.017 80 | 982.51 | 302.03 | 0.948 65 | 70 | 1.017 35 | 982.94 | 302.85 | 0.948 06 |
| 1.021 25 | 979.19 | 322.07 | 1.009 6 | 75 | 1.020 80 | 979.62 | 322.87 | 1.008 9 | 75 | 1.020 35 | 980.06 | 323.68 | 1.008 3 |
| 1.024 41 | 976.17 | 342.94 | 1.069 1 | 80 | 1.023 95 | 976.61 | 343.73 | 1.068 4 | 80 | 1.023 49 | 977.05 | 344.53 | 1.067 8 |
| 1.027 71 | 973.04 | 363.82 | 1.127 8 | 85 | 1.027 25 | 973.48 | 364.61 | 1.127 1 | 85 | 1.026 78 | 973.92 | 365.40 | 1.126 5 |
| 1.031 16 | 969.78 | 384.73 | 1.185 8 | 90 | 1.030 69 | 970.23 | 385.51 | 1.185 1 | 90 | 1.030 21 | 970.67 | 386.28 | 1.184 4 |
| 1.034 75 | 966.41 | 405.66 | 1.243 0 | 95 | 1.034 27 | 966.86 | 406.43 | 1.242 3 | 95 | 1.033 79 | 967.31 | 407.19 | 1.241 6 |
| 1.038 49 | 962.93 | 426.62 | 1.299 6 | 100 | 1.038 00 | 963.39 | 427.37 | 1.298 8 | 100 | 1.037 51 | 963.84 | 428.12 | 1.298 0 |
| 1.042 38 | 959.34 | 447.60 | 1.355 4 | 105 | 1.041 88 | 959.81 | 448.34 | 1.354 6 | 105 | 1.041 38 | 960.27 | 449.08 | 1.353 8 |
| 1.046 41 | 955.65 | 468.61 | 1.410 6 | 110 | 1.045 90 | 956.12 | 469.34 | 1.409 8 | 110 | 1.045 38 | 956.59 | 470.07 | 1.409 0 |
| 1.050 59 | 951.85 | 489.65 | 1.465 2 | 115 | 1.050 06 | 952.32 | 490.37 | 1.464 3 | 115 | 1.049 54 | 952.80 | 491.09 | 1.463 5 |
| 1.054 92 | 947.94 | 510.73 | 1.519 1 | 120 | 1.054 38 | 948.42 | 511.44 | 1.518 3 | 120 | 1.053 84 | 948.91 | 512.15 | 1.517 4 |
| 1.059 40 | 943.93 | 531.84 | 1.572 5 | 125 | 1.058 85 | 944.42 | 532.54 | 1.571 6 | 125 | 1.058 30 | 944.91 | 533.24 | 1.570 7 |
| 1.064 04 | 939.81 | 553.00 | 1.625 3 | 130 | 1.063 47 | 940.32 | 553.68 | 1.624 4 | 130 | 1.062 91 | 940.82 | 554.37 | 1.623 4 |
| 1.068 84 | 935.60 | 574.20 | 1.677 6 | 135 | 1.068 25 | 936.11 | 574.87 | 1.676 6 | 135 | 1.067 67 | 936.62 | 575.55 | 1.675 6 |
| 1.073 80 | 931.28 | 595.45 | 1.729 3 | 140 | 1.073 19 | 931.80 | 596.11 | 1.728 3 | 140 | 1.072 59 | 932.32 | 596.77 | 1.727 3 |
| 1.078 92 | 926.85 | 616.75 | 1.780 6 | 145 | 1.078 30 | 927.38 | 617.40 | 1.779 5 | 145 | 1.077 68 | 927.92 | 618.04 | 1.778 5 |
| 1.084 22 | 922.32 | 638.11 | 1.831 3 | 150 | 1.083 58 | 922.87 | 638.74 | 1.830 3 | 150 | 1.082 94 | 923.41 | 639.37 | 1.829 2 |
| 1.089 70 | 917.69 | 659.53 | 1.881 7 | 155 | 1.089 03 | 918.25 | 660.14 | 1.880 6 | 155 | 1.088 37 | 918.80 | 660.76 | 1.879 4 |
| 1.095 35 | 912.95 | 681.01 | 1.931 5 | 160 | 1.094 67 | 913.52 | 681.61 | 1.930 4 | 160 | 1.093 98 | 914.09 | 682.21 | 1.929 3 |
| 1.101 20 | 908.10 | 702.56 | 1.981 0 | 165 | 1.100 49 | 908.69 | 703.14 | 1.979 8 | 165 | 1.099 78 | 909.27 | 703.72 | 1.978 6 |
| 1.107 25 | 903.14 | 724.18 | 2.030 1 | 170 | 1.106 51 | 903.74 | 724.75 | 2.028 9 | 170 | 1.105 77 | 904.34 | 725.31 | 2.027 6 |
| 1.113 50 | 898.07 | 745.89 | 2.078 8 | 175 | 1.112 73 | 898.69 | 746.43 | 2.077 5 | 175 | 1.111 97 | 899.31 | 746.98 | 2.076 3 |
| 1.119 97 | 892.88 | 767.68 | 2.127 1 | 180 | 1.119 17 | 893.52 | 768.20 | 2.125 8 | 180 | 1.118 37 | 894.16 | 768.73 | 2.124 5 |
| 1.126 66 | 887.58 | 789.55 | 2.175 2 | 185 | 1.125 82 | 888.24 | 790.06 | 2.173 8 | 185 | 1.125 00 | 888.89 | 790.57 | 2.172 4 |
| 1.133 58 | 882.16 | 811.53 | 2.222 9 | 190 | 1.132 71 | 882.84 | 812.01 | 2.221 5 | 190 | 1.131 85 | 883.51 | 812.50 | 2.220 1 |
| 1.140 76 | 876.61 | 833.61 | 2.270 3 | 195 | 1.139 85 | 877.31 | 834.07 | 2.268 8 | 195 | 1.138 95 | 878.00 | 834.53 | 2.267 4 |
| 1.148 19 | 870.94 | 855.80 | 2.317 4 | 200 | 1.147 24 | 871.66 | 856.23 | 2.315 9 | 200 | 1.146 30 | 872.37 | 856.67 | 2.314 4 |
| 1.163 90 | 859.18 | 900.53 | 2.411 0 | 210 | 1.162 86 | 859.95 | 900.91 | 2.409 4 | 210 | 1.161 82 | 860.72 | 901.29 | 2.407 7 |
| 1.180 86 | 846.84 | 945.81 | 2.503 7 | 220 | 1.179 70 | 847.67 | 946.13 | 2.502 0 | 220 | 1.178 55 | 848.50 | 946.44 | 2.500 2 |
| 1.199 23 | 833.87 | 991.71 | 2.595 9 | 230 | 1.197 94 | 834.77 | 991.95 | 2.594 0 | 230 | 1.196 65 | 835.67 | 992.20 | 2.592 1 |
| 1.219 24 | 820.18 | 1038.3 | 2.687 6 | 240 | 1.217 77 | 821.17 | 1038.5 | 2.685 5 | 240 | 1.216 33 | 822.15 | 1038.6 | 2.683 5 |
| 1.241 15 | 805.70 | 1085.8 | 2.779 2 | 250 | 1.239 48 | 806.79 | 1085.8 | 2.776 9 | 250 | 1.237 83 | 807.86 | 1085.9 | 2.774 7 |
| 1.265 33 | 790.30 | 1134.3 | 2.871 0 | 260 | 1.263 40 | 791.51 | 1134.2 | 2.868 5 | 260 | 1.261 50 | 792.71 | 1134.1 | 2.866 0 |
| 1.292 27 | 773.83 | 1183.9 | 2.963 3 | 270 | 1.290 00 | 775.19 | 1183.7 | 2.960 4 | 270 | 1.287 78 | 776.53 | 1183.4 | 2.957 6 |
| 1.322 63 | 756.07 | 1235.0 | 3.056 5 | 280 | 1.319 92 | 757.62 | 1234.6 | 3.053 3 | 280 | 1.317 27 | 759.15 | 1234.1 | 3.050 1 |
| 1.357 39 | 736.71 | 1288.0 | 3.151 4 | 290 | 1.354 07 | 738.52 | 1287.3 | 3.147 7 | 290 | 1.350 83 | 740.28 | 1286.6 | 3.144 0 |

Table 3. Compressed Water and Superheated Steam (continued)

| 10 MPa ($t_s = 310.997\text{ }^\circ\text{C}$) | | | | $t, \text{ }^\circ\text{C}$ | 11 MPa ($t_s = 318.079\text{ }^\circ\text{C}$) | | | | $t, \text{ }^\circ\text{C}$ | 12 MPa ($t_s = 324.675\text{ }^\circ\text{C}$) | | | |
|--|--------|--------|--------|-----------------------------|--|--------|--------|--------|-----------------------------|--|--------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.398 04 | 715.29 | 1343.3 | 3.2488 | 300 | 1.393 83 | 717.45 | 1342.2 | 3.2444 | 300 | 1.389 76 | 719.55 | 1341.2 | 3.2401 |
| 1.447 09 | 691.04 | 1402.0 | 3.3502 | 310 | 1.441 49 | 693.72 | 1400.3 | 3.3449 | 310 | 1.436 13 | 696.31 | 1398.7 | 3.3397 |
| 19.270 | 51.894 | 2782.8 | 5.7133 | 320 | 16.274 | 61.447 | 2721.1 | 5.5793 | 320 | 1.493 66 | 669.50 | 1460.5 | 3.4447 |
| 20.444 | 48.913 | 2835.8 | 5.8019 | 330 | 17.565 | 56.931 | 2786.5 | 5.6888 | 330 | 15.021 | 66.572 | 2728.2 | 5.5651 |
| 21.487 | 46.539 | 2882.1 | 5.8782 | 340 | 18.656 | 53.602 | 2840.6 | 5.7777 | 340 | 16.210 | 61.690 | 2793.6 | 5.6727 |
| 22.440 | 44.564 | 2924.0 | 5.9459 | 350 | 19.625 | 50.955 | 2887.9 | 5.8542 | 350 | 17.221 | 58.068 | 2848.1 | 5.7609 |
| 23.325 | 42.873 | 2962.7 | 6.0075 | 360 | 20.509 | 48.758 | 2930.6 | 5.9223 | 360 | 18.121 | 55.185 | 2895.9 | 5.8371 |
| 24.158 | 41.394 | 2998.9 | 6.0642 | 370 | 21.331 | 46.881 | 2970.0 | 5.9840 | 370 | 18.943 | 52.791 | 2939.2 | 5.9049 |
| 24.950 | 40.081 | 3033.2 | 6.1172 | 380 | 22.103 | 45.243 | 3006.9 | 6.0410 | 380 | 19.706 | 50.746 | 2979.2 | 5.9665 |
| 25.707 | 38.900 | 3065.9 | 6.1669 | 390 | 22.836 | 43.790 | 3041.9 | 6.0941 | 390 | 20.424 | 48.961 | 3016.6 | 6.0234 |
| 26.436 | 37.827 | 3097.4 | 6.2141 | 400 | 23.537 | 42.486 | 3075.2 | 6.1440 | 400 | 21.106 | 47.380 | 3052.0 | 6.0764 |
| 27.142 | 36.844 | 3127.9 | 6.2590 | 410 | 24.212 | 41.302 | 3107.2 | 6.1912 | 410 | 21.758 | 45.961 | 3085.8 | 6.1262 |
| 27.826 | 35.937 | 3157.5 | 6.3020 | 420 | 24.864 | 40.219 | 3138.2 | 6.2362 | 420 | 22.385 | 44.674 | 3118.3 | 6.1734 |
| 28.493 | 35.096 | 3186.4 | 6.3434 | 430 | 25.496 | 39.221 | 3168.3 | 6.2793 | 430 | 22.990 | 43.497 | 3149.7 | 6.2184 |
| 29.144 | 34.312 | 3214.6 | 6.3833 | 440 | 26.112 | 38.297 | 3197.6 | 6.3207 | 440 | 23.577 | 42.413 | 3180.1 | 6.2614 |
| 29.782 | 33.578 | 3242.3 | 6.4219 | 450 | 26.713 | 37.435 | 3226.3 | 6.3607 | 450 | 24.149 | 41.410 | 3209.8 | 6.3028 |
| 30.407 | 32.887 | 3269.6 | 6.4593 | 460 | 27.301 | 36.629 | 3254.4 | 6.3993 | 460 | 24.707 | 40.475 | 3238.9 | 6.3427 |
| 31.022 | 32.236 | 3296.5 | 6.4957 | 470 | 27.877 | 35.872 | 3282.0 | 6.4367 | 470 | 25.252 | 39.601 | 3267.3 | 6.3812 |
| 31.626 | 31.619 | 3323.0 | 6.5311 | 480 | 28.443 | 35.158 | 3309.3 | 6.4731 | 480 | 25.787 | 38.780 | 3295.3 | 6.4186 |
| 32.223 | 31.034 | 3349.2 | 6.5657 | 490 | 29.000 | 34.482 | 3336.1 | 6.5085 | 490 | 26.312 | 38.006 | 3322.8 | 6.4549 |
| 32.811 | 30.478 | 3375.1 | 6.5995 | 500 | 29.549 | 33.842 | 3362.7 | 6.5431 | 500 | 26.828 | 37.275 | 3350.0 | 6.4903 |
| 33.966 | 29.441 | 3426.4 | 6.6649 | 520 | 30.624 | 32.654 | 3415.0 | 6.6099 | 520 | 27.837 | 35.923 | 3403.4 | 6.5585 |
| 35.097 | 28.493 | 3476.9 | 6.7278 | 540 | 31.674 | 31.571 | 3466.4 | 6.6739 | 540 | 28.821 | 34.697 | 3455.8 | 6.6237 |
| 36.207 | 27.619 | 3526.9 | 6.7886 | 560 | 32.703 | 30.578 | 3517.2 | 6.7356 | 560 | 29.782 | 33.577 | 3507.4 | 6.6864 |
| 37.300 | 26.809 | 3576.5 | 6.8474 | 580 | 33.714 | 29.661 | 3567.5 | 6.7953 | 580 | 30.725 | 32.547 | 3558.4 | 6.7469 |
| 38.378 | 26.057 | 3625.8 | 6.9045 | 600 | 34.709 | 28.811 | 3617.4 | 6.8531 | 600 | 31.651 | 31.594 | 3608.9 | 6.8054 |
| 39.442 | 25.353 | 3674.8 | 6.9600 | 620 | 35.691 | 28.018 | 3667.0 | 6.9092 | 620 | 32.564 | 30.708 | 3659.1 | 6.8622 |
| 40.495 | 24.694 | 3723.7 | 7.0142 | 640 | 36.661 | 27.277 | 3716.4 | 6.9639 | 640 | 33.465 | 29.882 | 3709.0 | 6.9175 |
| 41.538 | 24.074 | 3772.5 | 7.0670 | 660 | 37.621 | 26.581 | 3765.6 | 7.0173 | 660 | 34.356 | 29.107 | 3758.7 | 6.9713 |
| 42.572 | 23.490 | 3821.3 | 7.1187 | 680 | 38.571 | 25.926 | 3814.8 | 7.0694 | 680 | 35.237 | 28.379 | 3808.2 | 7.0239 |
| 43.597 | 22.937 | 3870.0 | 7.1693 | 700 | 39.513 | 25.308 | 3863.9 | 7.1204 | 700 | 36.109 | 27.694 | 3857.7 | 7.0753 |
| 44.615 | 22.414 | 3918.7 | 7.2189 | 720 | 40.448 | 24.723 | 3913.0 | 7.1703 | 720 | 36.975 | 27.046 | 3907.2 | 7.1256 |
| 45.627 | 21.917 | 3967.6 | 7.2676 | 740 | 41.376 | 24.169 | 3962.1 | 7.2193 | 740 | 37.833 | 26.432 | 3956.6 | 7.1748 |
| 46.633 | 21.444 | 4016.4 | 7.3153 | 760 | 42.298 | 23.642 | 4011.2 | 7.2673 | 760 | 38.685 | 25.849 | 4006.0 | 7.2232 |
| 47.633 | 20.994 | 4065.4 | 7.3623 | 780 | 43.215 | 23.140 | 4060.5 | 7.3146 | 780 | 39.532 | 25.296 | 4055.6 | 7.2706 |
| 48.629 | 20.564 | 4114.5 | 7.4085 | 800 | 44.126 | 22.662 | 4109.8 | 7.3610 | 800 | 40.375 | 24.768 | 4105.1 | 7.3173 |
| 49.620 | 20.153 | 4163.7 | 7.4539 | 820 | 45.034 | 22.206 | 4159.3 | 7.4066 | 820 | 41.212 | 24.265 | 4154.8 | 7.3631 |
| 50.607 | 19.760 | 4213.0 | 7.4986 | 840 | 45.937 | 21.769 | 4208.8 | 7.4515 | 840 | 42.045 | 23.784 | 4204.6 | 7.4083 |
| 51.590 | 19.383 | 4262.5 | 7.5427 | 860 | 46.837 | 21.351 | 4258.5 | 7.4958 | 860 | 42.875 | 23.324 | 4254.5 | 7.4527 |
| 52.570 | 19.022 | 4312.2 | 7.5861 | 880 | 47.733 | 20.950 | 4308.3 | 7.5394 | 880 | 43.701 | 22.883 | 4304.5 | 7.4965 |
| 53.547 | 18.675 | 4362.0 | 7.6290 | 900 | 48.625 | 20.565 | 4358.3 | 7.5824 | 900 | 44.524 | 22.460 | 4354.7 | 7.5396 |
| 54.521 | 18.342 | 4412.0 | 7.6712 | 920 | 49.515 | 20.196 | 4408.5 | 7.6247 | 920 | 45.344 | 22.054 | 4405.0 | 7.5821 |
| 55.492 | 18.021 | 4462.2 | 7.7129 | 940 | 50.402 | 19.840 | 4458.8 | 7.6666 | 940 | 46.161 | 21.663 | 4455.5 | 7.6241 |
| 56.460 | 17.712 | 4512.5 | 7.7541 | 960 | 51.287 | 19.498 | 4509.3 | 7.7079 | 960 | 46.976 | 21.287 | 4506.1 | 7.6655 |
| 57.426 | 17.414 | 4563.0 | 7.7947 | 980 | 52.169 | 19.168 | 4560.0 | 7.7486 | 980 | 47.789 | 20.925 | 4557.0 | 7.7064 |
| 58.390 | 17.126 | 4613.8 | 7.8349 | 1000 | 53.049 | 18.850 | 4610.9 | 7.7889 | 1000 | 48.599 | 20.577 | 4608.0 | 7.7467 |
| 63.183 | 15.827 | 4870.3 | 8.0288 | 1100 | 57.422 | 17.415 | 4868.0 | 7.9833 | 1100 | 52.622 | 19.003 | 4865.6 | 7.9416 |
| 67.938 | 14.719 | 5131.7 | 8.2126 | 1200 | 61.758 | 16.192 | 5129.8 | 8.1673 | 1200 | 56.608 | 17.665 | 5127.9 | 8.1259 |
| 72.667 | 13.761 | 5397.9 | 8.3874 | 1300 | 66.067 | 15.136 | 5396.4 | 8.3424 | 1300 | 60.567 | 16.511 | 5394.9 | 8.3012 |
| 77.374 | 12.924 | 5668.7 | 8.5543 | 1400 | 70.355 | 14.214 | 5667.5 | 8.5095 | 1400 | 64.505 | 15.503 | 5666.3 | 8.4685 |
| 82.066 | 12.185 | 5943.9 | 8.7140 | 1500 | 74.627 | 13.400 | 5942.9 | 8.6693 | 1500 | 68.428 | 14.614 | 5941.9 | 8.6284 |
| 86.745 | 11.528 | 6223.1 | 8.8671 | 1600 | 78.886 | 12.676 | 6222.3 | 8.8226 | 1600 | 72.337 | 13.824 | 6221.5 | 8.7818 |
| 96.074 | 10.409 | 6792.4 | 9.1559 | 1800 | 87.377 | 11.445 | 6791.9 | 9.1115 | 1800 | 80.129 | 12.480 | 6791.5 | 9.0709 |
| 105.38 | 9.4897 | 7374.6 | 9.4239 | 2000 | 95.840 | 10.434 | 7374.4 | 9.3796 | 2000 | 87.892 | 11.378 | 7374.2 | 9.3392 |

Table 3. Compressed Water and Superheated Steam (continued)

| 13 MPa ($t_s = 330.854\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 14 MPa ($t_s = 336.666\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 15 MPa ($t_s = 342.155\text{ }^{\circ}\text{C}$) | | | |
|--|---------|--------|----------|-----------------------|--|---------|--------|----------|-----------------------|--|---------|--------|----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.566 49 | 638.37 | 1531.5 | 3.5608 | $t_s(\text{L})$ | 1.609 74 | 621.22 | 1571.0 | 3.6232 | $t_s(\text{L})$ | 1.656 95 | 603.52 | 1610.2 | 3.6846 |
| 12.780 | 78.245 | 2662.7 | 5.4336 | $t_s(\text{V})$ | 11.485 | 87.069 | 2637.9 | 5.3727 | $t_s(\text{V})$ | 10.338 | 96.727 | 2610.7 | 5.3106 |
| 0.993 73 | 1006.31 | 13.07 | 0.000 41 | 0 | 0.993 25 | 1006.80 | 14.07 | 0.000 43 | 0 | 0.992 76 | 1007.29 | 15.07 | 0.000 45 |
| 0.993 82 | 1006.22 | 33.85 | 0.075 80 | 5 | 0.993 35 | 1006.70 | 34.83 | 0.075 74 | 5 | 0.992 88 | 1007.17 | 35.81 | 0.075 69 |
| 0.994 25 | 1005.78 | 54.61 | 0.149 75 | 10 | 0.993 79 | 1006.25 | 55.57 | 0.149 63 | 10 | 0.993 34 | 1006.71 | 56.53 | 0.149 51 |
| 0.994 98 | 1005.04 | 75.34 | 0.222 35 | 15 | 0.994 53 | 1005.50 | 76.29 | 0.222 18 | 15 | 0.994 09 | 1005.95 | 77.23 | 0.222 00 |
| 0.995 98 | 1004.04 | 96.07 | 0.293 68 | 20 | 0.995 54 | 1004.48 | 97.00 | 0.293 45 | 20 | 0.995 10 | 1004.93 | 97.93 | 0.293 23 |
| 0.997 22 | 1002.79 | 116.80 | 0.363 79 | 25 | 0.996 78 | 1003.23 | 117.72 | 0.363 52 | 25 | 0.996 35 | 1003.66 | 118.63 | 0.363 25 |
| 0.998 68 | 1001.32 | 137.53 | 0.432 74 | 30 | 0.998 25 | 1001.75 | 138.44 | 0.432 43 | 30 | 0.997 82 | 1002.19 | 139.34 | 0.432 11 |
| 1.000 35 | 999.65 | 158.27 | 0.500 58 | 35 | 0.999 92 | 1000.08 | 159.16 | 0.500 22 | 35 | 0.999 49 | 1000.51 | 160.05 | 0.499 87 |
| 1.002 20 | 997.80 | 179.01 | 0.567 34 | 40 | 1.001 78 | 998.23 | 179.89 | 0.566 95 | 40 | 1.001 35 | 998.65 | 180.77 | 0.566 56 |
| 1.004 24 | 995.77 | 199.76 | 0.633 08 | 45 | 1.003 82 | 996.20 | 200.62 | 0.632 65 | 45 | 1.003 39 | 996.62 | 201.49 | 0.632 23 |
| 1.006 46 | 993.58 | 220.51 | 0.697 82 | 50 | 1.006 03 | 994.01 | 221.37 | 0.697 36 | 50 | 1.005 60 | 994.43 | 222.23 | 0.696 90 |
| 1.008 83 | 991.24 | 241.28 | 0.761 60 | 55 | 1.008 40 | 991.67 | 242.13 | 0.761 10 | 55 | 1.007 97 | 992.09 | 242.98 | 0.760 61 |
| 1.011 37 | 988.76 | 262.06 | 0.824 44 | 60 | 1.010 94 | 989.18 | 262.90 | 0.823 92 | 60 | 1.010 51 | 989.60 | 263.74 | 0.823 40 |
| 1.014 06 | 986.13 | 282.86 | 0.886 39 | 65 | 1.013 63 | 986.56 | 283.68 | 0.885 84 | 65 | 1.013 19 | 986.98 | 284.51 | 0.885 29 |
| 1.016 91 | 983.37 | 303.66 | 0.947 48 | 70 | 1.016 47 | 983.80 | 304.48 | 0.946 89 | 70 | 1.016 03 | 984.23 | 305.30 | 0.946 31 |
| 1.019 90 | 980.49 | 324.49 | 1.0077 | 75 | 1.019 45 | 980.92 | 325.29 | 1.0071 | 75 | 1.019 01 | 981.35 | 326.10 | 1.0065 |
| 1.023 04 | 977.48 | 345.32 | 1.0671 | 80 | 1.022 58 | 977.91 | 346.12 | 1.0665 | 80 | 1.022 13 | 978.35 | 346.92 | 1.0659 |
| 1.026 32 | 974.36 | 366.18 | 1.1258 | 85 | 1.025 86 | 974.79 | 366.97 | 1.1251 | 85 | 1.025 40 | 975.23 | 367.75 | 1.1245 |
| 1.029 75 | 971.11 | 387.06 | 1.1837 | 90 | 1.029 28 | 971.56 | 387.83 | 1.1830 | 90 | 1.028 81 | 972.00 | 388.61 | 1.1823 |
| 1.033 31 | 967.76 | 407.96 | 1.2408 | 95 | 1.032 84 | 968.21 | 408.72 | 1.2401 | 95 | 1.032 36 | 968.65 | 409.49 | 1.2394 |
| 1.037 02 | 964.30 | 428.88 | 1.2973 | 100 | 1.036 54 | 964.75 | 429.63 | 1.2965 | 100 | 1.036 05 | 965.20 | 430.39 | 1.2958 |
| 1.040 88 | 960.73 | 449.83 | 1.3531 | 105 | 1.040 38 | 961.19 | 450.57 | 1.3523 | 105 | 1.039 89 | 961.64 | 451.32 | 1.3515 |
| 1.044 88 | 957.05 | 470.81 | 1.4082 | 110 | 1.044 37 | 957.52 | 471.54 | 1.4073 | 110 | 1.043 86 | 957.98 | 472.27 | 1.4065 |
| 1.049 02 | 953.27 | 491.81 | 1.4626 | 115 | 1.048 50 | 953.74 | 492.54 | 1.4618 | 115 | 1.047 98 | 954.21 | 493.26 | 1.4610 |
| 1.053 31 | 949.39 | 512.86 | 1.5165 | 120 | 1.052 78 | 949.87 | 513.57 | 1.5156 | 120 | 1.052 25 | 950.35 | 514.28 | 1.5148 |
| 1.057 75 | 945.40 | 533.94 | 1.5698 | 125 | 1.057 20 | 945.89 | 534.63 | 1.5689 | 125 | 1.056 66 | 946.38 | 535.33 | 1.5680 |
| 1.062 34 | 941.32 | 555.06 | 1.6225 | 130 | 1.061 78 | 941.81 | 555.74 | 1.6216 | 130 | 1.061 22 | 942.31 | 556.43 | 1.6206 |
| 1.067 09 | 937.13 | 576.22 | 1.6747 | 135 | 1.066 51 | 937.63 | 576.89 | 1.6737 | 135 | 1.065 94 | 938.14 | 577.57 | 1.6727 |
| 1.072 00 | 932.84 | 597.43 | 1.7263 | 140 | 1.071 40 | 933.36 | 598.09 | 1.7253 | 140 | 1.070 81 | 933.87 | 598.75 | 1.7243 |
| 1.077 07 | 928.45 | 618.69 | 1.7775 | 145 | 1.076 46 | 928.98 | 619.33 | 1.7764 | 145 | 1.075 85 | 929.50 | 619.98 | 1.7754 |
| 1.082 31 | 923.95 | 640.00 | 1.8281 | 150 | 1.081 67 | 924.49 | 640.63 | 1.8271 | 150 | 1.081 04 | 925.03 | 641.27 | 1.8260 |
| 1.087 72 | 919.36 | 661.37 | 1.8783 | 155 | 1.087 06 | 919.91 | 661.99 | 1.8772 | 155 | 1.086 41 | 920.46 | 662.61 | 1.8762 |
| 1.093 30 | 914.66 | 682.81 | 1.9281 | 160 | 1.092 63 | 915.22 | 683.41 | 1.9270 | 160 | 1.091 96 | 915.79 | 684.01 | 1.9259 |
| 1.099 08 | 909.85 | 704.31 | 1.9775 | 165 | 1.098 38 | 910.43 | 704.89 | 1.9763 | 165 | 1.097 68 | 911.01 | 705.48 | 1.9751 |
| 1.105 04 | 904.94 | 725.88 | 2.0264 | 170 | 1.104 32 | 905.54 | 726.45 | 2.0252 | 170 | 1.103 60 | 906.13 | 727.02 | 2.0240 |
| 1.111 21 | 899.92 | 747.53 | 2.0750 | 175 | 1.110 46 | 900.53 | 748.08 | 2.0738 | 175 | 1.109 71 | 901.14 | 748.63 | 2.0725 |
| 1.117 58 | 894.79 | 769.26 | 2.1232 | 180 | 1.116 80 | 895.42 | 769.79 | 2.1219 | 180 | 1.116 02 | 896.04 | 770.32 | 2.1206 |
| 1.124 17 | 889.54 | 791.07 | 2.1711 | 185 | 1.123 36 | 890.19 | 791.59 | 2.1698 | 185 | 1.122 55 | 890.83 | 792.10 | 2.1684 |
| 1.130 99 | 884.18 | 812.98 | 2.2187 | 190 | 1.130 14 | 884.84 | 813.47 | 2.2173 | 190 | 1.129 30 | 885.51 | 813.97 | 2.2159 |
| 1.138 05 | 878.69 | 834.99 | 2.2659 | 195 | 1.137 16 | 879.38 | 835.46 | 2.2645 | 195 | 1.136 28 | 880.06 | 835.93 | 2.2631 |
| 1.145 36 | 873.09 | 857.11 | 2.3129 | 200 | 1.144 43 | 873.80 | 857.55 | 2.3114 | 200 | 1.143 51 | 874.50 | 857.99 | 2.3100 |
| 1.160 79 | 861.48 | 901.68 | 2.4061 | 210 | 1.159 77 | 862.24 | 902.07 | 2.4045 | 210 | 1.158 76 | 862.99 | 902.46 | 2.4030 |
| 1.177 41 | 849.32 | 946.77 | 2.4985 | 220 | 1.176 28 | 850.14 | 947.10 | 2.4968 | 220 | 1.175 16 | 850.95 | 947.43 | 2.4951 |
| 1.195 38 | 836.55 | 992.45 | 2.5902 | 230 | 1.194 12 | 837.44 | 992.71 | 2.5883 | 230 | 1.192 87 | 838.31 | 992.97 | 2.5865 |
| 1.214 89 | 823.12 | 1038.8 | 2.6814 | 240 | 1.213 48 | 824.08 | 1039.0 | 2.6794 | 240 | 1.212 08 | 825.03 | 1039.2 | 2.6774 |
| 1.236 20 | 808.93 | 1086.0 | 2.7724 | 250 | 1.234 59 | 809.98 | 1086.0 | 2.7702 | 250 | 1.233 01 | 811.03 | 1086.1 | 2.7680 |
| 1.259 63 | 793.89 | 1134.0 | 2.8635 | 260 | 1.257 78 | 795.05 | 1134.0 | 2.8610 | 260 | 1.255 96 | 796.20 | 1134.0 | 2.8586 |
| 1.285 59 | 777.85 | 1183.2 | 2.9549 | 270 | 1.283 44 | 779.16 | 1183.0 | 2.9521 | 270 | 1.281 33 | 780.44 | 1182.9 | 2.9495 |
| 1.314 67 | 760.65 | 1233.7 | 3.0470 | 280 | 1.312 12 | 762.12 | 1233.4 | 3.0440 | 280 | 1.309 63 | 763.58 | 1233.0 | 3.0409 |
| 1.347 68 | 742.02 | 1285.9 | 3.1405 | 290 | 1.344 60 | 743.72 | 1285.3 | 3.1370 | 290 | 1.341 59 | 745.39 | 1284.7 | 3.1335 |

Table 3. Compressed Water and Superheated Steam (continued)

| 13 MPa ($t_s = 330.854\text{ }^{\circ}\text{C}$) | | | | | $t, ^{\circ}\text{C}$ | 14 MPa ($t_s = 336.666\text{ }^{\circ}\text{C}$) | | | | | $t, ^{\circ}\text{C}$ | 15 MPa ($t_s = 342.155\text{ }^{\circ}\text{C}$) | | | | |
|--|--------|--------|--------|--|-----------------------|--|--------|--------|--------|--|-----------------------|--|--------|--------|--------|--|
| v | ρ | h | s | | | v | ρ | h | s | | | v | ρ | h | s | |
| 1.385 81 | 721.60 | 1340.2 | 3.2360 | | 300 | 1.381 98 | 723.60 | 1339.2 | 3.2319 | | 300 | 1.378 26 | 725.55 | 1338.3 | 3.2279 | |
| 1.430 98 | 698.82 | 1397.2 | 3.3346 | | 310 | 1.426 03 | 701.25 | 1395.8 | 3.3297 | | 310 | 1.421 25 | 703.60 | 1394.4 | 3.3250 | |
| 1.486 50 | 672.72 | 1458.2 | 3.4383 | | 320 | 1.479 72 | 675.80 | 1456.0 | 3.4322 | | 320 | 1.473 26 | 678.77 | 1454.0 | 3.4263 | |
| 1.559 09 | 641.40 | 1525.4 | 3.5506 | | 330 | 1.548 83 | 645.65 | 1521.9 | 3.5423 | | 330 | 1.539 32 | 649.64 | 1518.8 | 3.5345 | |
| 14.029 | 71.282 | 2739.0 | 5.5591 | | 340 | 11.997 | 83.356 | 2672.3 | 5.4290 | | 340 | 1.631 13 | 613.07 | 1592.4 | 3.6555 | |
| 15.119 | 66.144 | 2803.7 | 5.6638 | | 350 | 13.232 | 75.577 | 2753.1 | 5.5598 | | 350 | 11.481 | 87.100 | 2693.1 | 5.4437 | |
| 16.053 | 62.292 | 2858.1 | 5.7504 | | 360 | 14.228 | 70.284 | 2816.5 | 5.6607 | | 360 | 12.582 | 79.476 | 2769.7 | 5.5657 | |
| 16.888 | 59.212 | 2906.2 | 5.8257 | | 370 | 15.091 | 66.264 | 2870.4 | 5.7453 | | 370 | 13.493 | 74.115 | 2831.4 | 5.6625 | |
| 17.653 | 56.649 | 2949.7 | 5.8929 | | 380 | 15.866 | 63.028 | 2918.3 | 5.8192 | | 380 | 14.289 | 69.984 | 2884.7 | 5.7446 | |
| 18.364 | 54.455 | 2990.0 | 5.9541 | | 390 | 16.577 | 60.323 | 2961.9 | 5.8855 | | 390 | 15.008 | 66.630 | 2932.2 | 5.8168 | |
| 19.033 | 52.540 | 3027.7 | 6.0106 | | 400 | 17.240 | 58.003 | 3002.3 | 5.9459 | | 400 | 15.671 | 63.812 | 2975.7 | 5.8819 | |
| 19.669 | 50.843 | 3063.5 | 6.0633 | | 410 | 17.865 | 55.974 | 3040.3 | 6.0019 | | 410 | 16.290 | 61.387 | 3016.1 | 5.9415 | |
| 20.276 | 49.318 | 3097.6 | 6.1129 | | 420 | 18.459 | 54.173 | 3076.2 | 6.0542 | | 420 | 16.875 | 59.260 | 3054.0 | 5.9967 | |
| 20.861 | 47.936 | 3130.4 | 6.1599 | | 430 | 19.028 | 52.554 | 3110.6 | 6.1034 | | 430 | 17.431 | 57.368 | 3090.1 | 6.0484 | |
| 21.426 | 46.672 | 3162.2 | 6.2047 | | 440 | 19.575 | 51.086 | 3143.7 | 6.1501 | | 440 | 17.964 | 55.666 | 3124.7 | 6.0971 | |
| 21.974 | 45.509 | 3193.0 | 6.2476 | | 450 | 20.104 | 49.743 | 3175.7 | 6.1946 | | 450 | 18.477 | 54.121 | 3157.9 | 6.1434 | |
| 22.507 | 44.431 | 3223.0 | 6.2888 | | 460 | 20.616 | 48.505 | 3206.7 | 6.2373 | | 460 | 18.973 | 52.706 | 3190.1 | 6.1876 | |
| 23.027 | 43.428 | 3252.3 | 6.3286 | | 470 | 21.115 | 47.359 | 3237.0 | 6.2783 | | 470 | 19.455 | 51.402 | 3221.3 | 6.2299 | |
| 23.535 | 42.489 | 3281.1 | 6.3670 | | 480 | 21.602 | 46.292 | 3266.6 | 6.3178 | | 480 | 19.923 | 50.193 | 3251.8 | 6.2706 | |
| 24.034 | 41.609 | 3309.3 | 6.4043 | | 490 | 22.078 | 45.294 | 3295.6 | 6.3561 | | 490 | 20.380 | 49.067 | 3281.6 | 6.3099 | |
| 24.523 | 40.779 | 3337.1 | 6.4405 | | 500 | 22.544 | 44.357 | 3324.1 | 6.3932 | | 500 | 20.827 | 48.014 | 3310.8 | 6.3480 | |
| 25.477 | 39.251 | 3391.7 | 6.5101 | | 520 | 23.452 | 42.640 | 3379.8 | 6.4643 | | 520 | 21.696 | 46.092 | 3367.8 | 6.4207 | |
| 26.404 | 37.873 | 3445.0 | 6.5766 | | 540 | 24.332 | 41.098 | 3434.2 | 6.5320 | | 540 | 22.534 | 44.376 | 3423.2 | 6.4897 | |
| 27.309 | 36.618 | 3497.5 | 6.6403 | | 560 | 25.188 | 39.701 | 3487.5 | 6.5968 | | 560 | 23.349 | 42.828 | 3477.4 | 6.5556 | |
| 28.194 | 35.468 | 3549.2 | 6.7016 | | 580 | 26.025 | 38.425 | 3539.9 | 6.6591 | | 580 | 24.144 | 41.419 | 3530.6 | 6.6187 | |
| 29.063 | 34.408 | 3600.4 | 6.7609 | | 600 | 26.845 | 37.252 | 3591.8 | 6.7191 | | 600 | 24.921 | 40.127 | 3583.1 | 6.6796 | |
| 29.918 | 33.424 | 3651.1 | 6.8184 | | 620 | 27.650 | 36.166 | 3643.1 | 6.7772 | | 620 | 25.684 | 38.935 | 3635.1 | 6.7384 | |
| 30.761 | 32.509 | 3701.5 | 6.8742 | | 640 | 28.443 | 35.158 | 3694.0 | 6.8336 | | 640 | 26.433 | 37.831 | 3686.5 | 6.7954 | |
| 31.593 | 31.653 | 3751.7 | 6.9286 | | 660 | 29.225 | 34.218 | 3744.7 | 6.8885 | | 660 | 27.172 | 36.802 | 3737.6 | 6.8508 | |
| 32.415 | 30.850 | 3801.7 | 6.9816 | | 680 | 29.997 | 33.337 | 3795.1 | 6.9419 | | 680 | 27.901 | 35.841 | 3788.5 | 6.9047 | |
| 33.229 | 30.094 | 3851.5 | 7.0333 | | 700 | 30.761 | 32.509 | 3845.3 | 6.9941 | | 700 | 28.621 | 34.939 | 3839.1 | 6.9572 | |
| 34.036 | 29.381 | 3901.3 | 7.0840 | | 720 | 31.517 | 31.729 | 3895.5 | 7.0451 | | 720 | 29.334 | 34.091 | 3889.6 | 7.0086 | |
| 34.835 | 28.707 | 3951.1 | 7.1336 | | 740 | 32.266 | 30.993 | 3945.6 | 7.0950 | | 740 | 30.039 | 33.290 | 3940.0 | 7.0589 | |
| 35.629 | 28.067 | 4000.8 | 7.1822 | | 760 | 33.009 | 30.295 | 3995.6 | 7.1440 | | 760 | 30.738 | 32.533 | 3990.4 | 7.1081 | |
| 36.417 | 27.460 | 4050.6 | 7.2299 | | 780 | 33.746 | 29.633 | 4045.7 | 7.1920 | | 780 | 31.432 | 31.815 | 4040.7 | 7.1563 | |
| 37.200 | 26.882 | 4100.4 | 7.2768 | | 800 | 34.479 | 29.003 | 4095.8 | 7.2391 | | 800 | 32.121 | 31.132 | 4091.1 | 7.2037 | |
| 37.978 | 26.331 | 4150.4 | 7.3229 | | 820 | 35.207 | 28.404 | 4145.9 | 7.2854 | | 820 | 32.805 | 30.483 | 4141.4 | 7.2502 | |
| 38.753 | 25.805 | 4200.3 | 7.3682 | | 840 | 35.931 | 27.831 | 4196.1 | 7.3309 | | 840 | 33.485 | 29.864 | 4191.9 | 7.2959 | |
| 39.523 | 25.302 | 4250.5 | 7.4128 | | 860 | 36.650 | 27.285 | 4246.4 | 7.3757 | | 860 | 34.161 | 29.273 | 4242.4 | 7.3409 | |
| 40.290 | 24.820 | 4300.7 | 7.4567 | | 880 | 37.367 | 26.762 | 4296.8 | 7.4198 | | 880 | 34.833 | 28.708 | 4293.0 | 7.3852 | |
| 41.054 | 24.358 | 4351.0 | 7.5000 | | 900 | 38.080 | 26.261 | 4347.4 | 7.4632 | | 900 | 35.503 | 28.167 | 4343.7 | 7.4288 | |
| 41.815 | 23.915 | 4401.5 | 7.5427 | | 920 | 38.790 | 25.780 | 4398.0 | 7.5060 | | 920 | 36.169 | 27.648 | 4394.5 | 7.4717 | |
| 42.573 | 23.489 | 4452.2 | 7.5848 | | 940 | 39.498 | 25.318 | 4448.8 | 7.5483 | | 940 | 36.832 | 27.150 | 4445.5 | 7.5141 | |
| 43.329 | 23.079 | 4503.0 | 7.6263 | | 960 | 40.203 | 24.874 | 4499.8 | 7.5899 | | 960 | 37.493 | 26.671 | 4496.6 | 7.5559 | |
| 44.082 | 22.685 | 4553.9 | 7.6673 | | 980 | 40.905 | 24.447 | 4550.9 | 7.6310 | | 980 | 38.152 | 26.211 | 4547.8 | 7.5971 | |
| 44.833 | 22.305 | 4605.0 | 7.7078 | | 1000 | 41.605 | 24.035 | 4602.1 | 7.6716 | | 1000 | 38.808 | 25.768 | 4599.2 | 7.6378 | |
| 48.560 | 20.593 | 4863.3 | 7.9030 | | 1100 | 45.079 | 22.183 | 4860.9 | 7.8673 | | 1100 | 42.062 | 23.774 | 4858.6 | 7.8339 | |
| 52.251 | 19.139 | 5126.0 | 8.0877 | | 1200 | 48.516 | 20.612 | 5124.2 | 8.0523 | | 1200 | 45.279 | 22.085 | 5122.3 | 8.0192 | |
| 55.914 | 17.885 | 5393.3 | 8.2633 | | 1300 | 51.925 | 19.259 | 5391.8 | 8.2280 | | 1300 | 48.468 | 20.632 | 5390.3 | 8.1952 | |
| 59.556 | 16.791 | 5665.0 | 8.4307 | | 1400 | 55.314 | 18.079 | 5663.8 | 8.3956 | | 1400 | 51.637 | 19.366 | 5662.5 | 8.3630 | |
| 63.182 | 15.827 | 5940.9 | 8.5908 | | 1500 | 58.687 | 17.040 | 5939.9 | 8.5559 | | 1500 | 54.790 | 18.251 | 5938.9 | 8.5234 | |
| 66.796 | 14.971 | 6220.7 | 8.7443 | | 1600 | 62.047 | 16.117 | 6219.9 | 8.7095 | | 1600 | 57.931 | 17.262 | 6219.1 | 8.6771 | |
| 73.996 | 13.514 | 6791.0 | 9.0335 | | 1800 | 68.739 | 14.548 | 6790.5 | 8.9989 | | 1800 | 64.183 | 15.580 | 6790.0 | 8.9666 | |
| 81.168 | 12.320 | 7373.9 | 9.3019 | | 2000 | 75.404 | 13.262 | 7373.7 | 9.2674 | | 2000 | 70.408 | 14.203 | 7373.5 | 9.2353 | |

Table 3. Compressed Water and Superheated Steam (continued)

| 16 MPa ($t_s = 347.355\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 17 MPa ($t_s = 352.293\text{ }^{\circ}\text{C}$) | | | | $t_s, ^{\circ}\text{C}$ | 18 MPa ($t_s = 356.992\text{ }^{\circ}\text{C}$) | | | |
|--|---------|--------|----------|-------------------------|--|---------|--------|----------|-------------------------|--|---------|--------|----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.709 44 | 584.99 | 1649.7 | 3.7457 | $t_{s(L)}$ | 1.769 26 | 565.21 | 1690.0 | 3.8077 | $t_{s(L)}$ | 1.839 80 | 543.54 | 1732.1 | 3.8718 |
| 9.3088 | 107.42 | 2580.8 | 5.2463 | $t_{s(V)}$ | 8.3709 | 119.46 | 2547.5 | 5.1787 | $t_{s(V)}$ | 7.5017 | 133.30 | 2509.8 | 5.1061 |
| 0.992 28 | 1007.78 | 16.06 | 0.000 46 | 0 | 0.991 79 | 1008.27 | 17.06 | 0.000 47 | 0 | 0.991 31 | 1008.76 | 18.05 | 0.000 47 |
| 0.992 41 | 1007.65 | 36.78 | 0.075 63 | 5 | 0.991 94 | 1008.12 | 37.76 | 0.075 56 | 5 | 0.991 48 | 1008.59 | 38.73 | 0.075 50 |
| 0.992 88 | 1007.17 | 57.48 | 0.149 39 | 10 | 0.992 42 | 1007.63 | 58.44 | 0.149 26 | 10 | 0.991 97 | 1008.09 | 59.40 | 0.149 14 |
| 0.993 64 | 1006.40 | 78.18 | 0.221 82 | 15 | 0.993 19 | 1006.85 | 79.12 | 0.221 64 | 15 | 0.992 75 | 1007.30 | 80.06 | 0.221 46 |
| 0.994 66 | 1005.37 | 98.86 | 0.293 00 | 20 | 0.994 22 | 1005.81 | 99.79 | 0.292 77 | 20 | 0.993 78 | 1006.25 | 100.72 | 0.292 54 |
| 0.995 92 | 1004.10 | 119.55 | 0.362 97 | 25 | 0.995 48 | 1004.54 | 120.46 | 0.362 70 | 25 | 0.995 05 | 1004.97 | 121.38 | 0.362 42 |
| 0.997 39 | 1002.62 | 140.24 | 0.431 80 | 30 | 0.996 96 | 1003.05 | 141.14 | 0.431 48 | 30 | 0.996 53 | 1003.48 | 142.04 | 0.431 17 |
| 0.999 06 | 1000.94 | 160.94 | 0.499 52 | 35 | 0.998 64 | 1001.37 | 161.83 | 0.499 16 | 35 | 0.998 21 | 1001.79 | 162.72 | 0.498 81 |
| 1.000 92 | 999.08 | 181.65 | 0.566 17 | 40 | 1.000 50 | 999.50 | 182.52 | 0.565 78 | 40 | 1.000 08 | 999.92 | 183.40 | 0.565 39 |
| 1.002 96 | 997.04 | 202.36 | 0.631 80 | 45 | 1.002 54 | 997.47 | 203.23 | 0.631 38 | 45 | 1.002 12 | 997.89 | 204.10 | 0.630 95 |
| 1.005 17 | 994.85 | 223.09 | 0.696 44 | 50 | 1.004 75 | 995.27 | 223.94 | 0.695 98 | 50 | 1.004 32 | 995.69 | 224.80 | 0.695 53 |
| 1.007 55 | 992.51 | 243.82 | 0.760 12 | 55 | 1.007 12 | 992.93 | 244.67 | 0.759 63 | 55 | 1.006 69 | 993.35 | 245.52 | 0.759 14 |
| 1.010 07 | 990.03 | 264.57 | 0.822 88 | 60 | 1.009 64 | 990.45 | 265.41 | 0.822 36 | 60 | 1.009 22 | 990.87 | 266.25 | 0.821 84 |
| 1.012 76 | 987.40 | 285.34 | 0.884 74 | 65 | 1.012 32 | 987.83 | 286.16 | 0.884 19 | 65 | 1.011 89 | 988.25 | 286.99 | 0.883 64 |
| 1.015 59 | 984.65 | 306.11 | 0.945 73 | 70 | 1.015 15 | 985.08 | 306.93 | 0.945 15 | 70 | 1.014 71 | 985.50 | 307.75 | 0.944 57 |
| 1.018 56 | 981.78 | 326.91 | 1.0059 | 75 | 1.018 12 | 982.20 | 327.71 | 1.0053 | 75 | 1.017 68 | 982.63 | 328.52 | 1.0047 |
| 1.021 68 | 978.78 | 347.71 | 1.0652 | 80 | 1.021 23 | 979.21 | 348.51 | 1.0646 | 80 | 1.020 79 | 979.64 | 349.31 | 1.0640 |
| 1.024 94 | 975.66 | 368.54 | 1.1238 | 85 | 1.024 49 | 976.10 | 369.33 | 1.1231 | 85 | 1.024 03 | 976.53 | 370.11 | 1.1225 |
| 1.028 35 | 972.44 | 389.39 | 1.1816 | 90 | 1.027 88 | 972.87 | 390.16 | 1.1809 | 90 | 1.027 42 | 973.31 | 390.94 | 1.1802 |
| 1.031 89 | 969.10 | 410.25 | 1.2387 | 95 | 1.031 42 | 969.54 | 411.02 | 1.2379 | 95 | 1.030 95 | 969.98 | 411.79 | 1.2372 |
| 1.035 57 | 965.65 | 431.14 | 1.2950 | 100 | 1.035 09 | 966.10 | 431.90 | 1.2943 | 100 | 1.034 61 | 966.55 | 432.66 | 1.2935 |
| 1.039 39 | 962.10 | 452.06 | 1.3507 | 105 | 1.038 90 | 962.55 | 452.81 | 1.3499 | 105 | 1.038 41 | 963.01 | 453.55 | 1.3492 |
| 1.043 36 | 958.44 | 473.01 | 1.4057 | 110 | 1.042 86 | 958.90 | 473.74 | 1.4049 | 110 | 1.042 36 | 959.36 | 474.47 | 1.4041 |
| 1.047 47 | 954.68 | 493.98 | 1.4601 | 115 | 1.046 95 | 955.15 | 494.70 | 1.4593 | 115 | 1.046 44 | 955.62 | 495.43 | 1.4585 |
| 1.051 72 | 950.82 | 514.99 | 1.5139 | 120 | 1.051 19 | 951.30 | 515.70 | 1.5130 | 120 | 1.050 67 | 951.77 | 516.41 | 1.5122 |
| 1.056 12 | 946.86 | 536.03 | 1.5671 | 125 | 1.055 58 | 947.35 | 536.73 | 1.5662 | 125 | 1.055 04 | 947.83 | 537.43 | 1.5653 |
| 1.060 67 | 942.80 | 557.12 | 1.6197 | 130 | 1.060 11 | 943.30 | 557.80 | 1.6188 | 130 | 1.059 56 | 943.79 | 558.49 | 1.6179 |
| 1.065 37 | 938.64 | 578.24 | 1.6718 | 135 | 1.064 80 | 939.15 | 578.92 | 1.6708 | 135 | 1.064 23 | 939.65 | 579.59 | 1.6699 |
| 1.070 22 | 934.38 | 599.41 | 1.7233 | 140 | 1.069 64 | 934.90 | 600.07 | 1.7224 | 140 | 1.069 05 | 935.41 | 600.74 | 1.7214 |
| 1.075 24 | 930.03 | 620.63 | 1.7744 | 145 | 1.074 64 | 930.55 | 621.28 | 1.7734 | 145 | 1.074 03 | 931.07 | 621.93 | 1.7724 |
| 1.080 42 | 925.57 | 641.90 | 1.8250 | 150 | 1.079 80 | 926.10 | 642.54 | 1.8239 | 150 | 1.079 18 | 926.63 | 643.17 | 1.8229 |
| 1.085 77 | 921.01 | 663.23 | 1.8751 | 155 | 1.085 12 | 921.55 | 663.85 | 1.8740 | 155 | 1.084 48 | 922.10 | 664.47 | 1.8729 |
| 1.091 29 | 916.35 | 684.62 | 1.9247 | 160 | 1.090 62 | 916.91 | 685.22 | 1.9236 | 160 | 1.089 96 | 917.46 | 685.83 | 1.9225 |
| 1.096 99 | 911.58 | 706.07 | 1.9740 | 165 | 1.096 30 | 912.16 | 706.66 | 1.9728 | 165 | 1.095 62 | 912.73 | 707.25 | 1.9717 |
| 1.102 88 | 906.72 | 727.59 | 2.0228 | 170 | 1.102 17 | 907.30 | 728.16 | 2.0216 | 170 | 1.101 46 | 907.89 | 728.74 | 2.0204 |
| 1.108 96 | 901.74 | 749.18 | 2.0713 | 175 | 1.108 22 | 902.35 | 749.74 | 2.0700 | 175 | 1.107 49 | 902.95 | 750.30 | 2.0688 |
| 1.115 25 | 896.66 | 770.86 | 2.1194 | 180 | 1.114 48 | 897.28 | 771.39 | 2.1181 | 180 | 1.113 71 | 897.90 | 771.93 | 2.1168 |
| 1.121 74 | 891.47 | 792.61 | 2.1671 | 185 | 1.120 94 | 892.11 | 793.13 | 2.1658 | 185 | 1.120 15 | 892.74 | 793.65 | 2.1645 |
| 1.128 46 | 886.17 | 814.46 | 2.2145 | 190 | 1.127 62 | 886.82 | 814.96 | 2.2132 | 190 | 1.126 80 | 887.47 | 815.46 | 2.2118 |
| 1.135 40 | 880.74 | 836.40 | 2.2617 | 195 | 1.134 53 | 881.42 | 836.88 | 2.2602 | 195 | 1.133 67 | 882.09 | 837.35 | 2.2588 |
| 1.142 59 | 875.20 | 858.44 | 2.3085 | 200 | 1.141 68 | 875.90 | 858.90 | 2.3070 | 200 | 1.140 78 | 876.59 | 859.35 | 2.3056 |
| 1.157 75 | 863.74 | 902.86 | 2.4014 | 210 | 1.156 76 | 864.49 | 903.26 | 2.3998 | 210 | 1.155 77 | 865.23 | 903.66 | 2.3983 |
| 1.174 05 | 851.75 | 947.77 | 2.4934 | 220 | 1.172 95 | 852.55 | 948.11 | 2.4917 | 220 | 1.171 86 | 853.34 | 948.46 | 2.4900 |
| 1.191 64 | 839.18 | 993.24 | 2.5847 | 230 | 1.190 42 | 840.04 | 993.51 | 2.5828 | 230 | 1.189 21 | 840.90 | 993.79 | 2.5810 |
| 1.210 69 | 825.97 | 1039.4 | 2.6754 | 240 | 1.209 32 | 826.91 | 1039.5 | 2.6734 | 240 | 1.207 97 | 827.84 | 1039.7 | 2.6715 |
| 1.231 44 | 812.06 | 1086.2 | 2.7658 | 250 | 1.229 89 | 813.08 | 1086.3 | 2.7637 | 250 | 1.228 36 | 814.09 | 1086.4 | 2.7615 |
| 1.254 17 | 797.34 | 1133.9 | 2.8562 | 260 | 1.252 40 | 798.47 | 1133.9 | 2.8538 | 260 | 1.250 65 | 799.58 | 1133.9 | 2.8515 |
| 1.279 25 | 781.71 | 1182.7 | 2.9468 | 270 | 1.277 20 | 782.96 | 1182.5 | 2.9442 | 270 | 1.275 18 | 784.20 | 1182.4 | 2.9416 |
| 1.307 18 | 765.01 | 1232.7 | 3.0380 | 280 | 1.304 77 | 766.42 | 1232.3 | 3.0350 | 280 | 1.302 41 | 767.81 | 1232.0 | 3.0321 |
| 1.338 65 | 747.02 | 1284.1 | 3.1302 | 290 | 1.335 77 | 748.63 | 1283.6 | 3.1268 | 290 | 1.332 96 | 750.21 | 1283.1 | 3.1236 |

Table 3. Compressed Water and Superheated Steam (continued)

| 16 MPa ($t_s = 347.355\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 17 MPa ($t_s = 352.293\text{ }^{\circ}\text{C}$) | | | | $t, ^{\circ}\text{C}$ | 18 MPa ($t_s = 356.992\text{ }^{\circ}\text{C}$) | | | |
|--|--------|--------|--------|-----------------------|--|--------|--------|--------|-----------------------|--|--------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.374 64 | 727.46 | 1337.4 | 3.2240 | 300 | 1.371 12 | 729.33 | 1336.6 | 3.2202 | 300 | 1.367 69 | 731.16 | 1335.8 | 3.2164 |
| 1.416 65 | 705.89 | 1393.2 | 3.3204 | 310 | 1.412 19 | 708.12 | 1391.9 | 3.3158 | 310 | 1.407 89 | 710.29 | 1390.8 | 3.3114 |
| 1.467 11 | 681.61 | 1452.1 | 3.4206 | 320 | 1.461 22 | 684.36 | 1450.3 | 3.4151 | 320 | 1.455 58 | 687.01 | 1448.6 | 3.4098 |
| 1.530 44 | 653.41 | 1515.8 | 3.5271 | 330 | 1.522 11 | 656.98 | 1513.1 | 3.5201 | 330 | 1.514 26 | 660.39 | 1510.6 | 3.5133 |
| 1.616 30 | 618.70 | 1587.4 | 3.6447 | 340 | 1.602 96 | 623.85 | 1582.9 | 3.6347 | 340 | 1.590 81 | 628.61 | 1578.8 | 3.6255 |
| 9.7658 | 102.40 | 2617.0 | 5.3045 | 350 | 1.726 98 | 579.05 | 1666.6 | 3.7702 | 350 | 1.702 99 | 587.20 | 1658.7 | 3.7547 |
| 11.061 | 90.407 | 2715.8 | 5.4619 | 360 | 9.6038 | 104.12 | 2651.1 | 5.3434 | 360 | 8.1112 | 123.29 | 2566.1 | 5.1952 |
| 12.046 | 83.012 | 2788.4 | 5.5756 | 370 | 10.713 | 93.345 | 2739.9 | 5.4826 | 370 | 9.4535 | 105.78 | 2683.9 | 5.3799 |
| 12.878 | 77.652 | 2848.3 | 5.6681 | 380 | 11.598 | 86.222 | 2808.7 | 5.5888 | 380 | 10.419 | 95.974 | 2764.9 | 5.5050 |
| 13.613 | 73.457 | 2900.6 | 5.7476 | 390 | 12.359 | 80.914 | 2866.7 | 5.6770 | 390 | 11.218 | 89.143 | 2830.3 | 5.6042 |
| 14.281 | 70.021 | 2947.6 | 5.8179 | 400 | 13.038 | 76.697 | 2917.9 | 5.7536 | 400 | 11.916 | 83.924 | 2886.4 | 5.6883 |
| 14.899 | 67.117 | 2990.7 | 5.8816 | 410 | 13.660 | 73.209 | 2964.2 | 5.8219 | 410 | 12.545 | 79.716 | 2936.4 | 5.7620 |
| 15.478 | 64.606 | 3031.0 | 5.9401 | 420 | 14.237 | 70.241 | 3007.0 | 5.8841 | 420 | 13.123 | 76.202 | 2982.0 | 5.8283 |
| 16.026 | 62.398 | 3069.0 | 5.9945 | 430 | 14.779 | 67.664 | 3047.1 | 5.9414 | 430 | 13.663 | 73.193 | 3024.4 | 5.8890 |
| 16.548 | 60.429 | 3105.1 | 6.0455 | 440 | 15.293 | 65.389 | 3084.9 | 5.9949 | 440 | 14.171 | 70.566 | 3064.1 | 5.9451 |
| 17.049 | 58.654 | 3139.7 | 6.0937 | 450 | 15.784 | 63.356 | 3121.0 | 6.0451 | 450 | 14.654 | 68.239 | 3101.8 | 5.9975 |
| 17.531 | 57.040 | 3173.0 | 6.1395 | 460 | 16.255 | 61.519 | 3155.6 | 6.0927 | 460 | 15.117 | 66.152 | 3137.7 | 6.0469 |
| 17.998 | 55.561 | 3205.3 | 6.1832 | 470 | 16.710 | 59.846 | 3189.0 | 6.1379 | 470 | 15.561 | 64.263 | 3172.3 | 6.0938 |
| 18.451 | 54.197 | 3236.7 | 6.2252 | 480 | 17.150 | 58.310 | 3221.4 | 6.1812 | 480 | 15.990 | 62.538 | 3205.7 | 6.1384 |
| 18.892 | 52.931 | 3267.3 | 6.2656 | 490 | 17.577 | 56.892 | 3252.9 | 6.2227 | 490 | 16.406 | 60.953 | 3238.1 | 6.1812 |
| 19.323 | 51.752 | 3297.3 | 6.3046 | 500 | 17.994 | 55.575 | 3283.6 | 6.2628 | 500 | 16.810 | 59.488 | 3269.7 | 6.2223 |
| 20.157 | 49.610 | 3355.6 | 6.3790 | 520 | 18.798 | 53.197 | 3343.2 | 6.3389 | 520 | 17.589 | 56.854 | 3330.7 | 6.3002 |
| 20.961 | 47.708 | 3412.1 | 6.4493 | 540 | 19.571 | 51.096 | 3400.8 | 6.4106 | 540 | 18.335 | 54.541 | 3389.5 | 6.3734 |
| 21.739 | 45.999 | 3467.2 | 6.5163 | 560 | 20.318 | 49.217 | 3456.9 | 6.4787 | 560 | 19.054 | 52.481 | 3446.5 | 6.4427 |
| 22.497 | 44.450 | 3521.2 | 6.5804 | 580 | 21.044 | 47.519 | 3511.7 | 6.5438 | 580 | 19.752 | 50.628 | 3502.2 | 6.5087 |
| 23.238 | 43.034 | 3574.4 | 6.6421 | 600 | 21.752 | 45.973 | 3565.7 | 6.6063 | 600 | 20.431 | 48.945 | 3556.8 | 6.5720 |
| 23.963 | 41.731 | 3627.0 | 6.7016 | 620 | 22.444 | 44.555 | 3618.8 | 6.6665 | 620 | 21.094 | 47.406 | 3610.6 | 6.6329 |
| 24.675 | 40.527 | 3679.0 | 6.7591 | 640 | 23.123 | 43.246 | 3671.4 | 6.7247 | 640 | 21.744 | 45.989 | 3663.8 | 6.6918 |
| 25.376 | 39.407 | 3730.6 | 6.8150 | 660 | 23.791 | 42.033 | 3723.5 | 6.7811 | 660 | 22.382 | 44.678 | 3716.3 | 6.7487 |
| 26.067 | 38.363 | 3781.9 | 6.8694 | 680 | 24.449 | 40.902 | 3775.2 | 6.8360 | 680 | 23.010 | 43.459 | 3768.5 | 6.8041 |
| 26.749 | 37.385 | 3832.9 | 6.9224 | 700 | 25.097 | 39.845 | 3826.6 | 6.8894 | 700 | 23.629 | 42.321 | 3820.4 | 6.8579 |
| 27.423 | 36.465 | 3883.8 | 6.9741 | 720 | 25.738 | 38.853 | 3877.9 | 6.9415 | 720 | 24.240 | 41.254 | 3872.0 | 6.9104 |
| 28.091 | 35.599 | 3934.5 | 7.0247 | 740 | 26.372 | 37.919 | 3928.9 | 6.9924 | 740 | 24.844 | 40.251 | 3923.4 | 6.9616 |
| 28.752 | 34.780 | 3985.1 | 7.0742 | 760 | 26.999 | 37.038 | 3979.9 | 7.0422 | 760 | 25.441 | 39.306 | 3974.6 | 7.0117 |
| 29.407 | 34.005 | 4035.7 | 7.1227 | 780 | 27.621 | 36.205 | 4030.8 | 7.0910 | 780 | 26.033 | 38.413 | 4025.8 | 7.0608 |
| 30.058 | 33.269 | 4086.3 | 7.1703 | 800 | 28.237 | 35.414 | 4081.6 | 7.1388 | 800 | 26.619 | 37.566 | 4076.9 | 7.1089 |
| 30.703 | 32.570 | 4137.0 | 7.2171 | 820 | 28.849 | 34.663 | 4132.5 | 7.1858 | 820 | 27.201 | 36.763 | 4128.0 | 7.1560 |
| 31.345 | 31.903 | 4187.6 | 7.2630 | 840 | 29.457 | 33.948 | 4183.4 | 7.2319 | 840 | 27.779 | 35.999 | 4179.1 | 7.2024 |
| 31.983 | 31.267 | 4238.3 | 7.3082 | 860 | 30.061 | 33.266 | 4234.3 | 7.2772 | 860 | 28.352 | 35.270 | 4230.3 | 7.2479 |
| 32.617 | 30.659 | 4289.1 | 7.3526 | 880 | 30.661 | 32.615 | 4285.3 | 7.3218 | 880 | 28.923 | 34.575 | 4281.4 | 7.2927 |
| 33.247 | 30.078 | 4340.0 | 7.3964 | 900 | 31.258 | 31.992 | 4336.4 | 7.3658 | 900 | 29.489 | 33.911 | 4332.7 | 7.3368 |
| 33.875 | 29.520 | 4391.0 | 7.4395 | 920 | 31.852 | 31.396 | 4387.5 | 7.4090 | 920 | 30.053 | 33.274 | 4384.0 | 7.3801 |
| 34.500 | 28.985 | 4442.2 | 7.4819 | 940 | 32.443 | 30.823 | 4438.8 | 7.4516 | 940 | 30.614 | 32.665 | 4435.5 | 7.4229 |
| 35.123 | 28.472 | 4493.4 | 7.5238 | 960 | 33.031 | 30.274 | 4490.2 | 7.4936 | 960 | 31.173 | 32.080 | 4487.0 | 7.4650 |
| 35.743 | 27.978 | 4544.8 | 7.5652 | 980 | 33.618 | 29.746 | 4541.7 | 7.5351 | 980 | 31.729 | 31.517 | 4538.7 | 7.5066 |
| 36.361 | 27.502 | 4596.3 | 7.6060 | 1000 | 34.202 | 29.238 | 4593.4 | 7.5760 | 1000 | 32.282 | 30.977 | 4590.5 | 7.5476 |
| 39.422 | 25.366 | 4856.3 | 7.8025 | 1100 | 37.093 | 26.959 | 4853.9 | 7.7730 | 1100 | 35.023 | 28.553 | 4851.6 | 7.7450 |
| 42.447 | 23.559 | 5120.4 | 7.9882 | 1200 | 39.948 | 25.033 | 5118.5 | 7.9589 | 1200 | 37.727 | 26.506 | 5116.6 | 7.9313 |
| 45.444 | 22.005 | 5388.7 | 8.1644 | 1300 | 42.775 | 23.378 | 5387.2 | 8.1354 | 1300 | 40.403 | 24.750 | 5385.7 | 8.1080 |
| 48.420 | 20.652 | 5661.3 | 8.3323 | 1400 | 45.582 | 21.938 | 5660.1 | 8.3035 | 1400 | 43.059 | 23.224 | 5658.8 | 8.2763 |
| 51.381 | 19.462 | 5937.9 | 8.4929 | 1500 | 48.373 | 20.673 | 5936.9 | 8.4642 | 1500 | 45.699 | 21.882 | 5935.9 | 8.4372 |
| 54.329 | 18.406 | 6218.3 | 8.6467 | 1600 | 51.151 | 19.550 | 6217.5 | 8.6182 | 1600 | 48.327 | 20.693 | 6216.7 | 8.5912 |
| 60.197 | 16.612 | 6789.6 | 8.9364 | 1800 | 56.679 | 17.643 | 6789.1 | 8.9080 | 1800 | 53.553 | 18.673 | 6788.6 | 8.8813 |
| 66.037 | 15.143 | 7373.2 | 9.2052 | 2000 | 62.181 | 16.082 | 7373.0 | 9.1769 | 2000 | 58.753 | 17.021 | 7372.8 | 9.1502 |

Table 3. Compressed Water and Superheated Steam (continued)

| 19 MPa ($t_s = 361.473\text{ }^{\circ}\text{C}$) | | | | | $t_s, ^{\circ}\text{C}$ | 20 MPa ($t_s = 365.749\text{ }^{\circ}\text{C}$) | | | | | $t_s, ^{\circ}\text{C}$ | 22 MPa ($t_s = 373.705\text{ }^{\circ}\text{C}$) | | | | |
|--|---------|--------|----------|-----|-------------------------|--|--------|----------|--------|----------|-------------------------|--|----------|--------|--------|--|
| v | ρ | h | s | | | v | ρ | h | s | | | v | ρ | h | s | |
| 1.926 77 | 519.00 | 1777.2 | 3.9401 | | $t_s(\text{L})$ | 2.0400 | 490.19 | 1827.2 | 4.0156 | | $t_s(\text{L})$ | 2.7044 | 369.77 | 2011.3 | 4.2945 | |
| 6.6773 | 149.76 | 2466.0 | 5.0256 | | $t_s(\text{V})$ | 5.8652 | 170.50 | 2412.3 | 4.9314 | | $t_s(\text{V})$ | 3.6475 | 274.16 | 2173.1 | 4.5446 | |
| 0.990 84 | 1009.25 | 19.04 | 0.000 47 | 0 | 0.990 36 | 1009.74 | 20.03 | 0.000 47 | 0 | 0.989 41 | 1010.71 | 22.01 | 0.000 46 | | | |
| 0.991 02 | 1009.07 | 39.70 | 0.075 43 | 5 | 0.990 55 | 1009.54 | 40.68 | 0.075 36 | 5 | 0.989 63 | 1010.48 | 42.61 | 0.075 21 | | | |
| 0.991 52 | 1008.55 | 60.35 | 0.149 01 | 10 | 0.991 07 | 1009.01 | 61.31 | 0.148 88 | 10 | 0.990 17 | 1009.93 | 63.21 | 0.148 61 | | | |
| 0.992 31 | 1007.75 | 81.00 | 0.221 28 | 15 | 0.991 87 | 1008.20 | 81.94 | 0.221 09 | 15 | 0.990 99 | 1009.09 | 83.81 | 0.220 72 | | | |
| 0.993 35 | 1006.69 | 101.64 | 0.292 31 | 20 | 0.992 92 | 1007.13 | 102.57 | 0.292 07 | 20 | 0.992 05 | 1008.01 | 104.41 | 0.291 61 | | | |
| 0.994 62 | 1005.41 | 122.29 | 0.362 15 | 25 | 0.994 19 | 1005.84 | 123.20 | 0.361 87 | 25 | 0.993 34 | 1006.70 | 125.02 | 0.361 32 | | | |
| 0.996 11 | 1003.91 | 142.94 | 0.430 85 | 30 | 0.995 68 | 1004.34 | 143.84 | 0.430 53 | 30 | 0.994 84 | 1005.19 | 145.64 | 0.429 90 | | | |
| 0.997 79 | 1002.22 | 163.61 | 0.498 45 | 35 | 0.997 37 | 1002.64 | 164.49 | 0.498 10 | 35 | 0.996 53 | 1003.49 | 166.27 | 0.497 39 | | | |
| 0.999 65 | 1000.35 | 184.28 | 0.565 00 | 40 | 0.999 23 | 1000.77 | 185.16 | 0.564 61 | 40 | 0.998 40 | 1001.61 | 186.91 | 0.563 83 | | | |
| 1.001 69 | 998.31 | 204.96 | 0.630 53 | 45 | 1.001 27 | 998.73 | 205.83 | 0.630 10 | 45 | 1.000 44 | 999.56 | 207.56 | 0.629 25 | | | |
| 1.003 90 | 996.11 | 225.66 | 0.695 07 | 50 | 1.003 48 | 996.53 | 226.51 | 0.694 61 | 50 | 1.002 64 | 997.37 | 228.22 | 0.693 70 | | | |
| 1.006 27 | 993.77 | 246.36 | 0.758 65 | 55 | 1.005 85 | 994.19 | 247.21 | 0.758 17 | 55 | 1.005 00 | 995.02 | 248.90 | 0.757 19 | | | |
| 1.008 79 | 991.29 | 267.08 | 0.821 32 | 60 | 1.008 36 | 991.71 | 267.92 | 0.820 80 | 60 | 1.007 52 | 992.54 | 269.59 | 0.819 76 | | | |
| 1.011 46 | 988.67 | 287.81 | 0.883 09 | 65 | 1.011 03 | 989.09 | 288.64 | 0.882 54 | 65 | 1.010 18 | 989.93 | 290.29 | 0.881 44 | | | |
| 1.014 28 | 985.92 | 308.56 | 0.943 99 | 70 | 1.013 84 | 986.35 | 309.38 | 0.943 41 | 70 | 1.012 98 | 987.19 | 311.01 | 0.942 26 | | | |
| 1.017 24 | 983.05 | 329.32 | 1.0041 | 75 | 1.016 80 | 983.48 | 330.13 | 1.0035 | 75 | 1.015 93 | 984.32 | 331.74 | 1.0022 | | | |
| 1.020 34 | 980.07 | 350.10 | 1.0633 | 80 | 1.019 89 | 980.49 | 350.90 | 1.0627 | 80 | 1.019 01 | 981.35 | 352.49 | 1.0614 | | | |
| 1.023 58 | 976.96 | 370.90 | 1.1218 | 85 | 1.023 13 | 977.39 | 371.69 | 1.1211 | 85 | 1.022 23 | 978.25 | 373.26 | 1.1198 | | | |
| 1.026 96 | 973.75 | 391.72 | 1.1795 | 90 | 1.026 50 | 974.18 | 392.49 | 1.1788 | 90 | 1.025 59 | 975.05 | 394.05 | 1.1775 | | | |
| 1.030 48 | 970.42 | 412.55 | 1.2365 | 95 | 1.030 01 | 970.86 | 413.32 | 1.2358 | 95 | 1.029 08 | 971.74 | 414.85 | 1.2344 | | | |
| 1.034 13 | 966.99 | 433.41 | 1.2928 | 100 | 1.033 66 | 967.44 | 434.17 | 1.2920 | 100 | 1.032 71 | 968.32 | 435.68 | 1.2906 | | | |
| 1.037 93 | 963.46 | 454.30 | 1.3484 | 105 | 1.037 44 | 963.91 | 455.04 | 1.3476 | 105 | 1.036 48 | 964.81 | 456.54 | 1.3461 | | | |
| 1.041 86 | 959.82 | 475.21 | 1.4033 | 110 | 1.041 36 | 960.28 | 475.94 | 1.4025 | 110 | 1.040 38 | 961.19 | 477.42 | 1.4009 | | | |
| 1.045 93 | 956.08 | 496.15 | 1.4576 | 115 | 1.045 43 | 956.55 | 496.88 | 1.4568 | 115 | 1.044 42 | 957.47 | 498.33 | 1.4551 | | | |
| 1.050 15 | 952.25 | 517.13 | 1.5113 | 120 | 1.049 63 | 952.72 | 517.84 | 1.5105 | 120 | 1.048 60 | 953.66 | 519.27 | 1.5088 | | | |
| 1.054 51 | 948.31 | 538.13 | 1.5644 | 125 | 1.053 98 | 948.79 | 538.84 | 1.5635 | 125 | 1.052 92 | 949.74 | 540.24 | 1.5618 | | | |
| 1.059 01 | 944.28 | 559.18 | 1.6169 | 130 | 1.058 47 | 944.76 | 559.87 | 1.6160 | 130 | 1.057 38 | 945.73 | 561.25 | 1.6142 | | | |
| 1.063 67 | 940.14 | 580.27 | 1.6689 | 135 | 1.063 11 | 940.64 | 580.95 | 1.6680 | 135 | 1.061 99 | 941.63 | 582.31 | 1.6661 | | | |
| 1.068 47 | 935.91 | 601.40 | 1.7204 | 140 | 1.067 90 | 936.42 | 602.07 | 1.7194 | 140 | 1.066 75 | 937.43 | 603.40 | 1.7175 | | | |
| 1.073 44 | 931.59 | 622.58 | 1.7713 | 145 | 1.072 84 | 932.10 | 623.23 | 1.7703 | 145 | 1.071 66 | 933.13 | 624.54 | 1.7683 | | | |
| 1.078 56 | 927.16 | 643.81 | 1.8218 | 150 | 1.077 95 | 927.69 | 644.45 | 1.8208 | 150 | 1.076 73 | 928.74 | 645.73 | 1.8187 | | | |
| 1.083 85 | 922.64 | 665.10 | 1.8718 | 155 | 1.083 21 | 923.18 | 665.72 | 1.8707 | 155 | 1.081 96 | 924.25 | 666.97 | 1.8686 | | | |
| 1.089 30 | 918.02 | 686.44 | 1.9214 | 160 | 1.088 65 | 918.57 | 687.05 | 1.9203 | 160 | 1.087 35 | 919.67 | 688.27 | 1.9181 | | | |
| 1.094 94 | 913.29 | 707.84 | 1.9705 | 165 | 1.094 26 | 913.86 | 708.44 | 1.9694 | 165 | 1.092 92 | 914.98 | 709.63 | 1.9671 | | | |
| 1.100 75 | 908.47 | 729.31 | 2.0192 | 170 | 1.100 05 | 909.05 | 729.89 | 2.0181 | 170 | 1.098 66 | 910.20 | 731.05 | 2.0157 | | | |
| 1.106 75 | 903.54 | 750.86 | 2.0676 | 175 | 1.106 03 | 904.14 | 751.42 | 2.0664 | 175 | 1.104 58 | 905.32 | 752.54 | 2.0639 | | | |
| 1.112 95 | 898.51 | 772.48 | 2.1156 | 180 | 1.112 20 | 899.12 | 773.02 | 2.1143 | 180 | 1.110 70 | 900.33 | 774.11 | 2.1118 | | | |
| 1.119 36 | 893.37 | 794.17 | 2.1632 | 185 | 1.118 57 | 894.00 | 794.70 | 2.1619 | 185 | 1.117 01 | 895.24 | 795.75 | 2.1593 | | | |
| 1.125 97 | 888.12 | 815.96 | 2.2105 | 190 | 1.125 16 | 888.77 | 816.46 | 2.2091 | 190 | 1.123 54 | 890.05 | 817.48 | 2.2065 | | | |
| 1.132 81 | 882.76 | 837.83 | 2.2574 | 195 | 1.131 96 | 883.42 | 838.32 | 2.2561 | 195 | 1.130 27 | 884.74 | 839.29 | 2.2533 | | | |
| 1.139 89 | 877.28 | 859.81 | 2.3041 | 200 | 1.139 00 | 877.97 | 860.27 | 2.3027 | 200 | 1.137 24 | 879.32 | 861.20 | 2.2999 | | | |
| 1.154 79 | 865.96 | 904.07 | 2.3967 | 210 | 1.153 81 | 866.69 | 904.48 | 2.3952 | 210 | 1.151 89 | 868.14 | 905.31 | 2.3921 | | | |
| 1.170 78 | 854.13 | 948.81 | 2.4884 | 220 | 1.169 71 | 854.91 | 949.16 | 2.4867 | 220 | 1.167 59 | 856.46 | 949.88 | 2.4834 | | | |
| 1.188 01 | 841.75 | 994.08 | 2.5792 | 230 | 1.186 82 | 842.59 | 994.37 | 2.5774 | 230 | 1.184 48 | 844.25 | 994.96 | 2.5739 | | | |
| 1.206 63 | 828.76 | 1040.0 | 2.6695 | 240 | 1.205 30 | 829.67 | 1040.2 | 2.6676 | 240 | 1.202 69 | 831.47 | 1040.6 | 2.6638 | | | |
| 1.226 85 | 815.10 | 1086.5 | 2.7594 | 250 | 1.225 36 | 816.09 | 1086.7 | 2.7573 | 250 | 1.222 42 | 818.05 | 1086.9 | 2.7532 | | | |
| 1.248 93 | 800.68 | 1133.9 | 2.8492 | 260 | 1.247 23 | 801.78 | 1134.0 | 2.8469 | 260 | 1.243 90 | 803.92 | 1134.0 | 2.8423 | | | |
| 1.273 20 | 785.42 | 1182.3 | 2.9390 | 270 | 1.271 25 | 786.63 | 1182.2 | 2.9365 | 270 | 1.267 43 | 789.00 | 1182.0 | 2.9315 | | | |
| 1.300 10 | 769.17 | 1231.8 | 3.0293 | 280 | 1.297 82 | 770.52 | 1231.5 | 3.0265 | 280 | 1.293 38 | 773.17 | 1231.0 | 3.0209 | | | |
| 1.330 20 | 751.77 | 1282.6 | 3.1203 | 290 | 1.327 50 | 753.29 | 1282.1 | 3.1172 | 290 | 1.322 27 | 756.28 | 1281.3 | 3.1110 | | | |

Table 3. Compressed Water and Superheated Steam (continued)

| 19 MPa ($t_s = 361.473\text{ }^{\circ}\text{C}$) | | | | | 20 MPa ($t_s = 365.749\text{ }^{\circ}\text{C}$) | | | | | 22 MPa ($t_s = 373.705\text{ }^{\circ}\text{C}$) | | | | |
|--|--------|--------|--------|-----------------------|--|--------|--------|--------|-----------------------|--|--------|--------|--------|-----------------------|
| v | ρ | h | s | $t, ^{\circ}\text{C}$ | v | ρ | h | s | $t, ^{\circ}\text{C}$ | v | ρ | h | s | $t, ^{\circ}\text{C}$ |
| 1.364 34 | 732.95 | 1335.1 | 3.2127 | 300 | 1.361 08 | 734.71 | 1334.4 | 3.2091 | 300 | 1.354 78 | 738.13 | 1333.0 | 3.2021 | 300 |
| 1.403 71 | 712.40 | 1389.7 | 3.3071 | 310 | 1.399 66 | 714.46 | 1388.6 | 3.3029 | 310 | 1.391 90 | 718.44 | 1386.7 | 3.2948 | 310 |
| 1.450 17 | 689.58 | 1447.0 | 3.4046 | 320 | 1.444 96 | 692.06 | 1445.5 | 3.3996 | 320 | 1.435 09 | 696.82 | 1442.7 | 3.3900 | 320 |
| 1.506 83 | 663.64 | 1508.2 | 3.5068 | 330 | 1.499 78 | 666.76 | 1505.9 | 3.5006 | 330 | 1.486 66 | 672.65 | 1501.8 | 3.4889 | 330 |
| 1.579 64 | 633.06 | 1575.0 | 3.6168 | 340 | 1.569 29 | 637.23 | 1571.6 | 3.6086 | 340 | 1.550 60 | 644.91 | 1565.4 | 3.5934 | 340 |
| 1.682 65 | 594.30 | 1651.9 | 3.7412 | 350 | 1.664 90 | 600.64 | 1646.0 | 3.7290 | 350 | 1.634 87 | 611.67 | 1635.9 | 3.7075 | 350 |
| 1.873 74 | 533.69 | 1755.2 | 3.9054 | 360 | 1.824 79 | 548.01 | 1740.1 | 3.8787 | 360 | 1.760 12 | 568.14 | 1719.4 | 3.8404 | 360 |
| 8.2199 | 121.66 | 2616.3 | 5.2610 | 370 | 6.9234 | 144.44 | 2526.5 | 5.1097 | 370 | 2.0286 | 492.96 | 1842.5 | 4.0332 | 370 |
| 9.3160 | 107.34 | 2715.9 | 5.4147 | 380 | 8.2599 | 121.07 | 2659.4 | 5.3149 | 380 | 6.1234 | 163.31 | 2504.5 | 5.0555 | 380 |
| 10.168 | 98.345 | 2790.7 | 5.5284 | 390 | 9.1906 | 108.81 | 2747.2 | 5.4483 | 390 | 7.3787 | 135.52 | 2643.9 | 5.2675 | 390 |
| 10.892 | 91.810 | 2852.8 | 5.6215 | 400 | 9.9503 | 100.50 | 2816.9 | 5.5525 | 400 | 8.2556 | 121.13 | 2735.8 | 5.4051 | 400 |
| 11.533 | 86.704 | 2907.1 | 5.7015 | 410 | 10.610 | 94.255 | 2876.2 | 5.6400 | 410 | 8.9702 | 111.48 | 2808.4 | 5.5122 | 410 |
| 12.117 | 82.531 | 2956.0 | 5.7725 | 420 | 11.201 | 89.278 | 2928.7 | 5.7163 | 420 | 9.5893 | 104.28 | 2870.0 | 5.6018 | 420 |
| 12.656 | 79.013 | 3000.8 | 5.8368 | 430 | 11.743 | 85.158 | 2976.4 | 5.7847 | 430 | 10.144 | 98.582 | 2924.5 | 5.6798 | 430 |
| 13.162 | 75.979 | 3042.6 | 5.8958 | 440 | 12.247 | 81.652 | 3020.4 | 5.8469 | 440 | 10.651 | 93.886 | 2973.7 | 5.7494 | 440 |
| 13.639 | 73.318 | 3082.0 | 5.9506 | 450 | 12.721 | 78.609 | 3061.7 | 5.9043 | 450 | 11.123 | 89.907 | 3019.2 | 5.8127 | 450 |
| 14.094 | 70.950 | 3119.4 | 6.0020 | 460 | 13.171 | 75.926 | 3100.7 | 5.9579 | 460 | 11.565 | 86.465 | 3061.7 | 5.8710 | 460 |
| 14.530 | 68.821 | 3155.3 | 6.0506 | 470 | 13.600 | 73.530 | 3137.8 | 6.0082 | 470 | 11.985 | 83.439 | 3101.8 | 5.9254 | 470 |
| 14.950 | 66.889 | 3189.8 | 6.0967 | 480 | 14.012 | 71.368 | 3173.5 | 6.0559 | 480 | 12.385 | 80.744 | 3140.0 | 5.9764 | 480 |
| 15.356 | 65.121 | 3223.1 | 6.1407 | 490 | 14.409 | 69.401 | 3207.9 | 6.1012 | 490 | 12.768 | 78.319 | 3176.5 | 6.0246 | 490 |
| 15.750 | 63.494 | 3255.5 | 6.1829 | 500 | 14.793 | 67.598 | 3241.2 | 6.1446 | 500 | 13.138 | 76.116 | 3211.8 | 6.0705 | 500 |
| 16.506 | 60.585 | 3318.0 | 6.2627 | 520 | 15.530 | 64.392 | 3305.2 | 6.2263 | 520 | 13.842 | 72.245 | 3279.0 | 6.1563 | 520 |
| 17.228 | 58.044 | 3378.0 | 6.3374 | 540 | 16.231 | 61.609 | 3366.4 | 6.3025 | 540 | 14.508 | 68.929 | 3342.8 | 6.2358 | 540 |
| 17.923 | 55.794 | 3436.0 | 6.4079 | 560 | 16.904 | 59.156 | 3425.4 | 6.3743 | 560 | 15.144 | 66.034 | 3404.0 | 6.3102 | 560 |
| 18.595 | 53.777 | 3492.6 | 6.4750 | 580 | 17.554 | 56.966 | 3482.9 | 6.4424 | 580 | 15.755 | 63.471 | 3463.3 | 6.3805 | 580 |
| 19.249 | 51.951 | 3548.0 | 6.5391 | 600 | 18.185 | 54.991 | 3539.0 | 6.5075 | 600 | 16.347 | 61.175 | 3521.0 | 6.4473 | 600 |
| 19.886 | 50.286 | 3602.4 | 6.6008 | 620 | 18.799 | 53.194 | 3594.1 | 6.5699 | 620 | 16.921 | 59.099 | 3577.4 | 6.5113 | 620 |
| 20.510 | 48.757 | 3656.1 | 6.6603 | 640 | 19.399 | 51.548 | 3648.4 | 6.6300 | 640 | 17.481 | 57.206 | 3632.9 | 6.5727 | 640 |
| 21.122 | 47.344 | 3709.2 | 6.7178 | 660 | 19.987 | 50.032 | 3702.0 | 6.6881 | 660 | 18.028 | 55.469 | 3687.6 | 6.6319 | 660 |
| 21.723 | 46.034 | 3761.8 | 6.7736 | 680 | 20.565 | 48.626 | 3755.1 | 6.7443 | 680 | 18.565 | 53.865 | 3741.6 | 6.6892 | 680 |
| 22.316 | 44.812 | 3814.1 | 6.8278 | 700 | 21.133 | 47.318 | 3807.8 | 6.7990 | 700 | 19.092 | 52.378 | 3795.1 | 6.7447 | 700 |
| 22.900 | 43.668 | 3866.0 | 6.8807 | 720 | 21.694 | 46.096 | 3860.1 | 6.8523 | 720 | 19.611 | 50.992 | 3848.2 | 6.7988 | 720 |
| 23.477 | 42.595 | 3917.8 | 6.9323 | 740 | 22.247 | 44.950 | 3912.2 | 6.9042 | 740 | 20.122 | 49.696 | 3901.0 | 6.8514 | 740 |
| 24.048 | 41.584 | 3969.3 | 6.9827 | 760 | 22.793 | 43.873 | 3964.1 | 6.9549 | 760 | 20.627 | 48.479 | 3953.5 | 6.9027 | 760 |
| 24.612 | 40.630 | 4020.8 | 7.0320 | 780 | 23.334 | 42.856 | 4015.8 | 7.0045 | 780 | 21.126 | 47.334 | 4005.8 | 6.9529 | 780 |
| 25.172 | 39.727 | 4072.2 | 7.0803 | 800 | 23.869 | 41.895 | 4067.5 | 7.0531 | 800 | 21.620 | 46.253 | 4058.0 | 7.0020 | 800 |
| 25.727 | 38.870 | 4123.5 | 7.1277 | 820 | 24.400 | 40.983 | 4119.0 | 7.1007 | 820 | 22.109 | 45.230 | 4110.1 | 7.0500 | 820 |
| 26.278 | 38.055 | 4174.9 | 7.1743 | 840 | 24.927 | 40.118 | 4170.6 | 7.1475 | 840 | 22.594 | 44.260 | 4162.1 | 7.0972 | 840 |
| 26.824 | 37.280 | 4226.2 | 7.2200 | 860 | 25.449 | 39.294 | 4222.2 | 7.1934 | 860 | 23.074 | 43.339 | 4214.1 | 7.1435 | 860 |
| 27.367 | 36.540 | 4277.6 | 7.2649 | 880 | 25.968 | 38.509 | 4273.7 | 7.2385 | 880 | 23.551 | 42.461 | 4266.0 | 7.1889 | 880 |
| 27.907 | 35.833 | 4329.0 | 7.3092 | 900 | 26.483 | 37.759 | 4325.4 | 7.2829 | 900 | 24.025 | 41.624 | 4318.0 | 7.2336 | 900 |
| 28.444 | 35.157 | 4380.6 | 7.3527 | 920 | 26.996 | 37.043 | 4377.1 | 7.3266 | 920 | 24.495 | 40.824 | 4370.1 | 7.2776 | 920 |
| 28.978 | 34.509 | 4432.2 | 7.3956 | 940 | 27.506 | 36.356 | 4428.8 | 7.3696 | 940 | 24.963 | 40.059 | 4422.2 | 7.3209 | 940 |
| 29.509 | 33.887 | 4483.9 | 7.4379 | 960 | 28.013 | 35.698 | 4480.7 | 7.4120 | 960 | 25.428 | 39.326 | 4474.3 | 7.3636 | 960 |
| 30.038 | 33.291 | 4535.7 | 7.4796 | 980 | 28.518 | 35.066 | 4532.6 | 7.4538 | 980 | 25.891 | 38.623 | 4526.6 | 7.4056 | 980 |
| 30.565 | 32.717 | 4587.6 | 7.5207 | 1000 | 29.020 | 34.459 | 4584.7 | 7.4950 | 1000 | 26.352 | 37.948 | 4578.9 | 7.4470 | 1000 |
| 33.171 | 30.147 | 4849.3 | 7.7185 | 1100 | 31.504 | 31.742 | 4846.9 | 7.6933 | 1100 | 28.626 | 34.934 | 4842.3 | 7.6462 | 1100 |
| 35.740 | 27.980 | 5114.7 | 7.9051 | 1200 | 33.952 | 29.454 | 5112.8 | 7.8802 | 1200 | 30.863 | 32.401 | 5109.1 | 7.8337 | 1200 |
| 38.281 | 26.122 | 5384.2 | 8.0820 | 1300 | 36.371 | 27.494 | 5382.6 | 8.0574 | 1300 | 33.073 | 30.236 | 5379.6 | 8.0113 | 1300 |
| 40.802 | 24.509 | 5657.6 | 8.2505 | 1400 | 38.771 | 25.793 | 5656.4 | 8.2260 | 1400 | 35.262 | 28.359 | 5653.9 | 8.1804 | 1400 |
| 43.307 | 23.091 | 5934.9 | 8.4115 | 1500 | 41.154 | 24.299 | 5933.9 | 8.3871 | 1500 | 37.435 | 26.713 | 5932.0 | 8.3418 | 1500 |
| 45.799 | 21.834 | 6215.9 | 8.5657 | 1600 | 43.525 | 22.975 | 6215.1 | 8.5414 | 1600 | 39.596 | 25.255 | 6213.6 | 8.4963 | 1600 |
| 50.756 | 19.702 | 6788.2 | 8.8559 | 1800 | 48.238 | 20.730 | 6787.7 | 8.8318 | 1800 | 43.890 | 22.784 | 6786.8 | 8.7870 | 1800 |
| 55.685 | 17.958 | 7372.6 | 9.1249 | 2000 | 52.925 | 18.895 | 7372.3 | 9.1010 | 2000 | 48.157 | 20.765 | 7371.9 | 9.0564 | 2000 |

Table 3. Compressed Water and Superheated Steam (continued)

| 25 MPa | | | | t, °C | 30 MPa | | | | t, °C | 35 MPa | | | |
|----------|---------|--------|----------|-------|----------|---------|--------|----------|-------|----------|---------|--------|----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 0.988 00 | 1012.15 | 24.96 | 0.000 41 | 0 | 0.985 67 | 1014.54 | 29.86 | 0.000 27 | 0 | 0.983 38 | 1016.90 | 34.72 | 0.000 05 |
| 0.988 26 | 1011.88 | 45.51 | 0.074 96 | 5 | 0.986 01 | 1014.19 | 50.32 | 0.074 50 | 5 | 0.983 79 | 1016.48 | 55.10 | 0.073 98 |
| 0.988 84 | 1011.29 | 66.06 | 0.148 19 | 10 | 0.986 64 | 1013.54 | 70.79 | 0.147 45 | 10 | 0.984 47 | 1015.77 | 75.50 | 0.146 66 |
| 0.989 68 | 1010.43 | 86.62 | 0.220 15 | 15 | 0.987 53 | 1012.63 | 91.28 | 0.219 16 | 15 | 0.985 40 | 1014.81 | 95.91 | 0.218 13 |
| 0.990 77 | 1009.32 | 107.18 | 0.290 89 | 20 | 0.988 65 | 1011.48 | 111.77 | 0.289 68 | 20 | 0.986 56 | 1013.63 | 116.34 | 0.288 44 |
| 0.992 07 | 1007.99 | 127.75 | 0.360 47 | 25 | 0.989 98 | 1010.12 | 132.28 | 0.359 05 | 25 | 0.987 91 | 1012.23 | 136.80 | 0.357 61 |
| 0.993 58 | 1006.46 | 148.33 | 0.428 94 | 30 | 0.991 50 | 1008.57 | 152.81 | 0.427 32 | 30 | 0.989 46 | 1010.65 | 157.27 | 0.425 70 |
| 0.995 27 | 1004.75 | 168.93 | 0.496 32 | 35 | 0.993 21 | 1006.83 | 173.35 | 0.494 52 | 35 | 0.991 18 | 1008.90 | 177.75 | 0.492 72 |
| 0.997 15 | 1002.86 | 189.53 | 0.562 65 | 40 | 0.995 09 | 1004.93 | 193.90 | 0.560 69 | 40 | 0.993 07 | 1006.98 | 198.26 | 0.558 73 |
| 0.999 19 | 1000.81 | 210.15 | 0.627 98 | 45 | 0.997 14 | 1002.87 | 214.47 | 0.625 86 | 45 | 0.995 11 | 1004.91 | 218.78 | 0.623 74 |
| 1.001 39 | 998.61 | 230.79 | 0.692 33 | 50 | 0.999 33 | 1000.67 | 235.05 | 0.690 05 | 50 | 0.997 31 | 1002.70 | 239.31 | 0.687 78 |
| 1.003 75 | 996.27 | 251.43 | 0.755 73 | 55 | 1.001 68 | 998.32 | 255.65 | 0.753 30 | 55 | 0.999 65 | 1000.35 | 259.86 | 0.750 89 |
| 1.006 25 | 993.79 | 272.09 | 0.818 21 | 60 | 1.004 17 | 995.84 | 276.26 | 0.815 64 | 60 | 1.002 13 | 997.88 | 280.43 | 0.813 08 |
| 1.008 90 | 991.17 | 292.77 | 0.879 81 | 65 | 1.006 81 | 993.24 | 296.89 | 0.877 10 | 65 | 1.004 75 | 995.28 | 301.01 | 0.874 40 |
| 1.011 70 | 988.44 | 313.46 | 0.940 54 | 70 | 1.009 58 | 990.51 | 317.53 | 0.937 69 | 70 | 1.007 50 | 992.56 | 321.60 | 0.934 86 |
| 1.014 63 | 985.59 | 334.16 | 1.0004 | 75 | 1.012 49 | 987.67 | 338.19 | 0.997 46 | 75 | 1.010 38 | 989.73 | 342.21 | 0.994 50 |
| 1.017 69 | 982.61 | 354.88 | 1.0595 | 80 | 1.015 53 | 984.71 | 358.86 | 1.0564 | 80 | 1.013 39 | 986.78 | 362.84 | 1.0533 |
| 1.020 90 | 979.53 | 375.62 | 1.1178 | 85 | 1.018 70 | 981.65 | 379.55 | 1.1146 | 85 | 1.016 54 | 983.73 | 383.49 | 1.1114 |
| 1.024 23 | 976.34 | 396.38 | 1.1754 | 90 | 1.022 00 | 978.47 | 400.26 | 1.1720 | 90 | 1.019 80 | 980.58 | 404.15 | 1.1687 |
| 1.027 70 | 973.05 | 417.15 | 1.2322 | 95 | 1.025 43 | 975.20 | 420.99 | 1.2287 | 95 | 1.023 20 | 977.33 | 424.83 | 1.2252 |
| 1.031 30 | 969.65 | 437.95 | 1.2883 | 100 | 1.028 99 | 971.82 | 441.74 | 1.2847 | 100 | 1.026 72 | 973.97 | 445.54 | 1.2811 |
| 1.035 04 | 966.14 | 458.78 | 1.3438 | 105 | 1.032 68 | 968.35 | 462.52 | 1.3400 | 105 | 1.030 37 | 970.53 | 466.26 | 1.3363 |
| 1.038 91 | 962.54 | 479.63 | 1.3986 | 110 | 1.036 51 | 964.78 | 483.32 | 1.3946 | 110 | 1.034 14 | 966.98 | 487.01 | 1.3908 |
| 1.042 92 | 958.85 | 500.50 | 1.4527 | 115 | 1.040 46 | 961.11 | 504.14 | 1.4486 | 115 | 1.038 05 | 963.35 | 507.79 | 1.4447 |
| 1.047 06 | 955.05 | 521.41 | 1.5062 | 120 | 1.044 55 | 957.35 | 525.00 | 1.5020 | 120 | 1.042 08 | 959.62 | 528.59 | 1.4979 |
| 1.051 34 | 951.16 | 542.35 | 1.5591 | 125 | 1.048 77 | 953.50 | 545.88 | 1.5548 | 125 | 1.046 24 | 955.80 | 549.43 | 1.5506 |
| 1.055 77 | 947.18 | 563.33 | 1.6115 | 130 | 1.053 12 | 949.56 | 566.81 | 1.6070 | 130 | 1.050 53 | 951.90 | 570.29 | 1.6027 |
| 1.060 33 | 943.10 | 584.35 | 1.6633 | 135 | 1.057 62 | 945.52 | 587.76 | 1.6587 | 135 | 1.054 96 | 947.90 | 591.20 | 1.6542 |
| 1.065 05 | 938.93 | 605.41 | 1.7146 | 140 | 1.062 26 | 941.39 | 608.76 | 1.7098 | 140 | 1.059 53 | 943.82 | 612.14 | 1.7052 |
| 1.069 91 | 934.66 | 626.51 | 1.7654 | 145 | 1.067 04 | 937.17 | 629.80 | 1.7605 | 145 | 1.064 23 | 939.64 | 633.12 | 1.7557 |
| 1.074 92 | 930.30 | 647.66 | 1.8156 | 150 | 1.071 97 | 932.86 | 650.89 | 1.8106 | 150 | 1.069 08 | 935.38 | 654.14 | 1.8056 |
| 1.080 09 | 925.85 | 668.86 | 1.8654 | 155 | 1.077 05 | 928.46 | 672.02 | 1.8602 | 155 | 1.074 07 | 931.04 | 675.21 | 1.8551 |
| 1.085 43 | 921.30 | 690.11 | 1.9148 | 160 | 1.082 28 | 923.97 | 693.21 | 1.9094 | 160 | 1.079 22 | 926.60 | 696.33 | 1.9042 |
| 1.090 93 | 916.65 | 711.43 | 1.9637 | 165 | 1.087 68 | 919.39 | 714.45 | 1.9582 | 165 | 1.084 51 | 922.07 | 717.50 | 1.9528 |
| 1.096 60 | 911.91 | 732.80 | 2.0122 | 170 | 1.093 24 | 914.71 | 735.75 | 2.0065 | 170 | 1.089 97 | 917.46 | 738.73 | 2.0009 |
| 1.102 45 | 907.07 | 754.25 | 2.0604 | 175 | 1.098 97 | 909.94 | 757.11 | 2.0545 | 175 | 1.095 59 | 912.75 | 760.02 | 2.0487 |
| 1.108 49 | 902.13 | 775.76 | 2.1081 | 180 | 1.104 88 | 905.07 | 778.54 | 2.1020 | 180 | 1.101 38 | 907.95 | 781.37 | 2.0961 |
| 1.114 72 | 897.09 | 797.35 | 2.1555 | 185 | 1.110 98 | 900.11 | 800.05 | 2.1492 | 185 | 1.107 34 | 903.06 | 802.79 | 2.1431 |
| 1.121 15 | 891.94 | 819.02 | 2.2025 | 190 | 1.117 26 | 895.05 | 821.62 | 2.1961 | 190 | 1.113 49 | 898.08 | 824.28 | 2.1897 |
| 1.127 78 | 886.69 | 840.77 | 2.2492 | 195 | 1.123 74 | 889.88 | 843.28 | 2.2426 | 195 | 1.119 83 | 893.00 | 845.84 | 2.2361 |
| 1.134 64 | 881.33 | 862.61 | 2.2956 | 200 | 1.130 43 | 884.62 | 865.02 | 2.2888 | 200 | 1.126 36 | 887.82 | 867.48 | 2.2820 |
| 1.149 06 | 870.28 | 906.59 | 2.3876 | 210 | 1.144 47 | 873.76 | 908.77 | 2.3803 | 210 | 1.140 05 | 877.15 | 911.02 | 2.3731 |
| 1.164 49 | 858.75 | 951.00 | 2.4786 | 220 | 1.159 47 | 862.46 | 952.93 | 2.4707 | 220 | 1.154 64 | 866.07 | 954.94 | 2.4631 |
| 1.181 04 | 846.71 | 995.89 | 2.5687 | 230 | 1.175 52 | 850.69 | 997.54 | 2.5603 | 230 | 1.170 22 | 854.54 | 999.28 | 2.5521 |
| 1.198 87 | 834.12 | 1041.3 | 2.6582 | 240 | 1.192 75 | 838.40 | 1042.7 | 2.6491 | 240 | 1.186 90 | 842.53 | 1044.1 | 2.6403 |
| 1.218 14 | 820.92 | 1087.4 | 2.7471 | 250 | 1.211 31 | 825.56 | 1088.4 | 2.7373 | 250 | 1.204 81 | 830.00 | 1089.4 | 2.7278 |
| 1.239 06 | 807.06 | 1134.2 | 2.8357 | 260 | 1.231 37 | 812.10 | 1134.7 | 2.8250 | 260 | 1.224 11 | 816.92 | 1135.4 | 2.8148 |
| 1.261 90 | 792.46 | 1181.9 | 2.9242 | 270 | 1.253 17 | 797.98 | 1181.8 | 2.9126 | 270 | 1.244 98 | 803.23 | 1182.0 | 2.9014 |
| 1.286 99 | 777.01 | 1230.5 | 3.0129 | 280 | 1.276 98 | 783.10 | 1229.8 | 3.0001 | 280 | 1.267 66 | 788.85 | 1229.4 | 2.9879 |
| 1.314 78 | 760.59 | 1280.2 | 3.1020 | 290 | 1.303 15 | 767.37 | 1278.7 | 3.0878 | 290 | 1.292 45 | 773.73 | 1277.7 | 3.0744 |

Table 3. Compressed Water and Superheated Steam (continued)

| 25 MPa | | | | <i>t</i> , °C | 30 MPa | | | | <i>t</i> , °C | 35 MPa | | | |
|----------|----------|----------|----------|---------------|----------|----------|----------|----------|---------------|----------|----------|----------|----------|
| <i>v</i> | <i>ρ</i> | <i>h</i> | <i>s</i> | | <i>v</i> | <i>ρ</i> | <i>h</i> | <i>s</i> | | <i>v</i> | <i>ρ</i> | <i>h</i> | <i>s</i> |
| 1.3459 | 743.02 | 1331.3 | 3.1919 | 300 | 1.3322 | 750.66 | 1328.9 | 3.1760 | 300 | 1.3197 | 757.74 | 1327.0 | 3.1612 |
| 1.3810 | 724.09 | 1384.1 | 3.2832 | 310 | 1.3646 | 732.80 | 1380.4 | 3.2652 | 310 | 1.3499 | 740.78 | 1377.6 | 3.2486 |
| 1.4215 | 703.49 | 1438.9 | 3.3764 | 320 | 1.4014 | 713.58 | 1433.7 | 3.3557 | 320 | 1.3837 | 722.67 | 1429.5 | 3.3370 |
| 1.4690 | 680.74 | 1496.4 | 3.4726 | 330 | 1.4436 | 692.69 | 1489.1 | 3.4483 | 330 | 1.4220 | 703.22 | 1483.2 | 3.4268 |
| 1.5264 | 655.13 | 1557.5 | 3.5731 | 340 | 1.4932 | 669.70 | 1547.1 | 3.5438 | 340 | 1.4660 | 682.13 | 1539.1 | 3.5186 |
| 1.5988 | 625.45 | 1623.9 | 3.6804 | 350 | 1.5529 | 643.95 | 1608.8 | 3.6436 | 350 | 1.5174 | 659.01 | 1597.6 | 3.6132 |
| 1.6969 | 589.31 | 1698.6 | 3.7993 | 360 | 1.6276 | 614.39 | 1675.6 | 3.7498 | 360 | 1.5791 | 633.29 | 1659.6 | 3.7120 |
| 1.8503 | 540.46 | 1789.8 | 3.9423 | 370 | 1.7268 | 579.09 | 1750.1 | 3.8666 | 370 | 1.6554 | 604.08 | 1726.5 | 3.8168 |
| 2.2182 | 450.82 | 1935.7 | 4.1671 | 380 | 1.8729 | 533.93 | 1838.2 | 4.0025 | 380 | 1.7546 | 569.94 | 1800.4 | 3.9308 |
| 4.6474 | 215.18 | 2395.7 | 4.8660 | 390 | 2.1331 | 468.81 | 1955.3 | 4.1804 | 390 | 1.8930 | 528.27 | 1885.4 | 4.0599 |
| 6.0047 | 166.54 | 2578.6 | 5.1400 | 400 | 2.7978 | 357.43 | 2152.8 | 4.4757 | 400 | 2.1054 | 474.97 | 1988.6 | 4.2143 |
| 6.8833 | 145.28 | 2687.1 | 5.3000 | 410 | 3.9809 | 251.20 | 2395.4 | 4.8336 | 410 | 2.4747 | 404.09 | 2123.9 | 4.4138 |
| 7.5792 | 131.94 | 2769.4 | 5.4197 | 420 | 4.9203 | 203.24 | 2552.9 | 5.0627 | 420 | 3.0838 | 324.28 | 2291.9 | 4.6579 |
| 8.1725 | 122.36 | 2837.8 | 5.5176 | 430 | 5.6366 | 177.41 | 2662.8 | 5.2200 | 430 | 3.7800 | 264.55 | 2447.6 | 4.8809 |
| 8.6986 | 114.96 | 2897.3 | 5.6016 | 440 | 6.2267 | 160.60 | 2748.9 | 5.3416 | 440 | 4.4120 | 226.65 | 2571.8 | 5.0564 |
| 9.1763 | 108.98 | 2950.6 | 5.6759 | 450 | 6.7373 | 148.43 | 2821.0 | 5.4421 | 450 | 4.9572 | 201.73 | 2671.0 | 5.1945 |
| 9.6176 | 103.98 | 2999.4 | 5.7428 | 460 | 7.1931 | 139.02 | 2884.0 | 5.5286 | 460 | 5.4336 | 184.04 | 2753.6 | 5.3080 |
| 10.030 | 99.701 | 3044.6 | 5.8042 | 470 | 7.6083 | 131.44 | 2940.4 | 5.6051 | 470 | 5.8588 | 170.68 | 2824.8 | 5.4046 |
| 10.419 | 95.976 | 3087.2 | 5.8610 | 480 | 7.9923 | 125.12 | 2992.0 | 5.6741 | 480 | 6.2450 | 160.13 | 2888.1 | 5.4891 |
| 10.789 | 92.686 | 3127.5 | 5.9142 | 490 | 8.3515 | 119.74 | 3039.9 | 5.7372 | 490 | 6.6009 | 151.49 | 2945.3 | 5.5646 |
| 11.143 | 89.744 | 3165.9 | 5.9642 | 500 | 8.6904 | 115.07 | 3084.7 | 5.7956 | 500 | 6.9325 | 144.25 | 2997.9 | 5.6331 |
| 11.811 | 84.670 | 3238.4 | 6.0569 | 520 | 9.3200 | 107.30 | 3167.6 | 5.9014 | 520 | 7.5392 | 132.64 | 3092.9 | 5.7544 |
| 12.436 | 80.411 | 3306.5 | 6.1416 | 540 | 9.9000 | 101.01 | 3243.6 | 5.9961 | 540 | 8.0893 | 123.62 | 3178.1 | 5.8605 |
| 13.029 | 76.752 | 3371.2 | 6.2202 | 560 | 10.442 | 95.763 | 3314.7 | 6.0825 | 560 | 8.5974 | 116.31 | 3256.4 | 5.9556 |
| 13.595 | 73.555 | 3433.3 | 6.2940 | 580 | 10.955 | 91.279 | 3382.2 | 6.1625 | 580 | 9.0732 | 110.21 | 3329.6 | 6.0425 |
| 14.140 | 70.720 | 3493.5 | 6.3637 | 600 | 11.445 | 87.377 | 3446.7 | 6.2373 | 600 | 9.5234 | 105.00 | 3398.9 | 6.1228 |
| 14.667 | 68.180 | 3552.1 | 6.4300 | 620 | 11.914 | 83.931 | 3509.1 | 6.3079 | 620 | 9.9527 | 100.48 | 3465.3 | 6.1980 |
| 15.179 | 65.881 | 3609.4 | 6.4935 | 640 | 12.368 | 80.854 | 3569.7 | 6.3750 | 640 | 10.365 | 96.480 | 3529.4 | 6.2689 |
| 15.678 | 63.785 | 3665.7 | 6.5545 | 660 | 12.808 | 78.078 | 3628.8 | 6.4391 | 660 | 10.762 | 92.916 | 3591.5 | 6.3363 |
| 16.165 | 61.861 | 3721.2 | 6.6133 | 680 | 13.236 | 75.553 | 3686.8 | 6.5006 | 680 | 11.148 | 89.704 | 3652.2 | 6.4006 |
| 16.643 | 60.084 | 3776.0 | 6.6702 | 700 | 13.653 | 73.242 | 3743.9 | 6.5598 | 700 | 11.523 | 86.786 | 3711.6 | 6.4622 |
| 17.113 | 58.437 | 3830.2 | 6.7254 | 720 | 14.062 | 71.112 | 3800.2 | 6.6171 | 720 | 11.888 | 84.118 | 3769.9 | 6.5216 |
| 17.574 | 56.901 | 3884.1 | 6.7791 | 740 | 14.463 | 69.141 | 3855.8 | 6.6726 | 740 | 12.246 | 81.662 | 3827.4 | 6.5789 |
| 18.029 | 55.465 | 3937.6 | 6.8313 | 760 | 14.857 | 67.307 | 3910.9 | 6.7264 | 760 | 12.596 | 79.391 | 3884.3 | 6.6345 |
| 18.478 | 54.117 | 3990.8 | 6.8823 | 780 | 15.245 | 65.594 | 3965.7 | 6.7789 | 780 | 12.940 | 77.280 | 3940.5 | 6.6884 |
| 18.922 | 52.848 | 4043.8 | 6.9322 | 800 | 15.628 | 63.990 | 4020.0 | 6.8300 | 800 | 13.278 | 75.310 | 3996.3 | 6.7409 |
| 19.361 | 51.651 | 4096.6 | 6.9810 | 820 | 16.005 | 62.481 | 4074.1 | 6.8800 | 820 | 13.612 | 73.466 | 4051.7 | 6.7920 |
| 19.795 | 50.518 | 4149.3 | 7.0287 | 840 | 16.378 | 61.058 | 4128.0 | 6.9288 | 840 | 13.941 | 71.733 | 4106.7 | 6.8419 |
| 20.225 | 49.443 | 4201.9 | 7.0756 | 860 | 16.747 | 59.714 | 4181.7 | 6.9766 | 860 | 14.265 | 70.100 | 4161.5 | 6.8907 |
| 20.652 | 48.421 | 4254.5 | 7.1216 | 880 | 17.112 | 58.440 | 4235.3 | 7.0235 | 880 | 14.586 | 68.557 | 4216.1 | 6.9385 |
| 21.075 | 47.449 | 4307.1 | 7.1668 | 900 | 17.473 | 57.230 | 4288.8 | 7.0695 | 900 | 14.904 | 67.097 | 4270.6 | 6.9853 |
| 21.496 | 46.521 | 4359.6 | 7.2112 | 920 | 17.832 | 56.079 | 4342.2 | 7.1147 | 920 | 15.218 | 65.710 | 4324.9 | 7.0312 |
| 21.913 | 45.635 | 4412.2 | 7.2549 | 940 | 18.188 | 54.982 | 4395.6 | 7.1591 | 940 | 15.530 | 64.392 | 4379.1 | 7.0763 |
| 22.328 | 44.787 | 4464.8 | 7.2979 | 960 | 18.541 | 53.935 | 4449.0 | 7.2027 | 960 | 15.839 | 63.136 | 4433.3 | 7.1205 |
| 22.740 | 43.975 | 4517.5 | 7.3403 | 980 | 18.891 | 52.934 | 4502.4 | 7.2457 | 980 | 16.145 | 61.937 | 4487.4 | 7.1641 |
| 23.150 | 43.196 | 4570.2 | 7.3820 | 1000 | 19.240 | 51.976 | 4555.8 | 7.2880 | 1000 | 16.450 | 60.792 | 4541.5 | 7.2069 |
| 25.172 | 39.726 | 4835.4 | 7.5825 | 1100 | 20.953 | 47.725 | 4823.8 | 7.4906 | 1100 | 17.942 | 55.734 | 4812.4 | 7.4118 |
| 27.157 | 36.822 | 5103.5 | 7.7710 | 1200 | 22.630 | 44.189 | 5094.2 | 7.6807 | 1200 | 19.398 | 51.552 | 5085.0 | 7.6034 |
| 29.115 | 34.346 | 5375.1 | 7.9493 | 1300 | 24.279 | 41.187 | 5367.6 | 7.8602 | 1300 | 20.827 | 48.015 | 5360.1 | 7.7841 |
| 31.052 | 32.204 | 5650.3 | 8.1189 | 1400 | 25.908 | 38.598 | 5644.2 | 8.0307 | 1400 | 22.235 | 44.974 | 5638.2 | 7.9554 |
| 32.974 | 30.327 | 5929.0 | 8.2807 | 1500 | 27.521 | 36.335 | 5924.2 | 8.1932 | 1500 | 23.628 | 42.322 | 5919.4 | 8.1186 |
| 34.883 | 28.668 | 6211.2 | 8.4356 | 1600 | 29.122 | 34.338 | 6207.4 | 8.3485 | 1600 | 25.009 | 39.986 | 6203.6 | 8.2746 |
| 38.672 | 25.858 | 6785.4 | 8.7267 | 1800 | 32.296 | 30.964 | 6783.1 | 8.6405 | 1800 | 27.742 | 36.046 | 6780.9 | 8.5673 |
| 42.436 | 23.565 | 7371.2 | 8.9965 | 2000 | 35.443 | 28.214 | 7370.1 | 8.9108 | 2000 | 30.450 | 32.841 | 7369.1 | 8.8382 |

Table 3. Compressed Water and Superheated Steam (continued)

| 40 MPa | | | | $t, ^\circ\text{C}$ | 45 MPa | | | | $t, ^\circ\text{C}$ | 50 MPa | | | |
|----------|---------|--------|-----------|---------------------|----------|---------|--------|-----------|---------------------|----------|---------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 0.981 13 | 1019.23 | 39.55 | -0.000 24 | 0 | 0.978 92 | 1021.54 | 44.35 | -0.000 60 | 0 | 0.976 73 | 1023.82 | 49.13 | -0.001 03 |
| 0.981 60 | 1018.74 | 59.85 | 0.073 40 | 5 | 0.979 45 | 1020.98 | 64.58 | 0.072 76 | 5 | 0.977 33 | 1023.20 | 69.28 | 0.072 07 |
| 0.982 34 | 1017.98 | 80.18 | 0.145 82 | 10 | 0.980 24 | 1020.16 | 84.83 | 0.144 94 | 10 | 0.978 16 | 1022.32 | 89.47 | 0.144 02 |
| 0.983 31 | 1016.97 | 100.53 | 0.217 07 | 15 | 0.981 25 | 1019.11 | 105.12 | 0.215 97 | 15 | 0.979 22 | 1021.22 | 109.69 | 0.214 83 |
| 0.984 50 | 1015.75 | 120.90 | 0.287 16 | 20 | 0.982 47 | 1017.85 | 125.44 | 0.285 86 | 20 | 0.980 47 | 1019.92 | 129.95 | 0.284 54 |
| 0.985 88 | 1014.32 | 141.29 | 0.356 15 | 25 | 0.983 87 | 1016.39 | 145.78 | 0.354 66 | 25 | 0.981 89 | 1018.44 | 150.24 | 0.353 16 |
| 0.987 44 | 1012.72 | 161.71 | 0.424 05 | 30 | 0.985 45 | 1014.76 | 166.14 | 0.422 40 | 30 | 0.983 49 | 1016.79 | 170.56 | 0.420 73 |
| 0.989 17 | 1010.94 | 182.15 | 0.490 91 | 35 | 0.987 20 | 1012.97 | 186.53 | 0.489 10 | 35 | 0.985 25 | 1014.97 | 190.89 | 0.487 27 |
| 0.991 07 | 1009.01 | 202.60 | 0.556 76 | 40 | 0.989 10 | 1011.02 | 206.93 | 0.554 79 | 40 | 0.987 15 | 1013.01 | 211.25 | 0.552 81 |
| 0.993 11 | 1006.93 | 223.07 | 0.621 61 | 45 | 0.991 14 | 1008.93 | 227.36 | 0.619 50 | 45 | 0.989 20 | 1010.92 | 231.63 | 0.617 38 |
| 0.995 31 | 1004.72 | 243.56 | 0.685 51 | 50 | 0.993 33 | 1006.71 | 247.80 | 0.683 25 | 50 | 0.991 39 | 1008.69 | 252.03 | 0.681 00 |
| 0.997 64 | 1002.37 | 264.06 | 0.748 48 | 55 | 0.995 66 | 1004.36 | 268.26 | 0.746 08 | 55 | 0.993 71 | 1006.33 | 272.45 | 0.743 69 |
| 1.000 11 | 999.89 | 284.58 | 0.810 54 | 60 | 0.998 12 | 1001.88 | 288.74 | 0.808 01 | 60 | 0.996 16 | 1003.86 | 292.88 | 0.805 49 |
| 1.002 71 | 997.30 | 305.12 | 0.871 72 | 65 | 1.000 71 | 999.29 | 309.23 | 0.869 06 | 65 | 0.998 73 | 1001.27 | 313.33 | 0.866 42 |
| 1.005 45 | 994.58 | 325.67 | 0.932 05 | 70 | 1.003 42 | 996.59 | 329.74 | 0.929 27 | 70 | 1.001 43 | 998.57 | 333.80 | 0.926 50 |
| 1.008 31 | 991.76 | 346.24 | 0.991 56 | 75 | 1.006 26 | 993.77 | 350.26 | 0.988 65 | 75 | 1.004 25 | 995.77 | 354.28 | 0.985 75 |
| 1.011 29 | 988.83 | 366.82 | 1.0503 | 80 | 1.009 23 | 990.86 | 370.80 | 1.0472 | 80 | 1.007 19 | 992.86 | 374.78 | 1.0442 |
| 1.014 41 | 985.80 | 387.42 | 1.1082 | 85 | 1.012 31 | 987.84 | 391.36 | 1.1050 | 85 | 1.010 25 | 989.85 | 395.29 | 1.1019 |
| 1.017 64 | 982.66 | 408.04 | 1.1654 | 90 | 1.015 52 | 984.72 | 411.93 | 1.1621 | 90 | 1.013 43 | 986.75 | 415.82 | 1.1588 |
| 1.021 00 | 979.43 | 428.68 | 1.2218 | 95 | 1.018 84 | 981.50 | 432.52 | 1.2184 | 95 | 1.016 72 | 983.56 | 436.37 | 1.2150 |
| 1.024 49 | 976.10 | 449.33 | 1.2775 | 100 | 1.022 29 | 978.20 | 453.14 | 1.2740 | 100 | 1.020 13 | 980.27 | 456.94 | 1.2705 |
| 1.028 09 | 972.68 | 470.01 | 1.3326 | 105 | 1.025 85 | 974.80 | 473.77 | 1.3289 | 105 | 1.023 65 | 976.89 | 477.53 | 1.3253 |
| 1.031 82 | 969.16 | 490.72 | 1.3870 | 110 | 1.029 54 | 971.31 | 494.42 | 1.3832 | 110 | 1.027 30 | 973.43 | 498.14 | 1.3795 |
| 1.035 68 | 965.55 | 511.44 | 1.4407 | 115 | 1.033 35 | 967.73 | 515.10 | 1.4368 | 115 | 1.031 06 | 969.88 | 518.77 | 1.4330 |
| 1.039 65 | 961.86 | 532.20 | 1.4938 | 120 | 1.037 28 | 964.06 | 535.81 | 1.4898 | 120 | 1.034 94 | 966.24 | 539.43 | 1.4859 |
| 1.043 76 | 958.07 | 552.98 | 1.5464 | 125 | 1.041 33 | 960.31 | 556.54 | 1.5422 | 125 | 1.038 94 | 962.52 | 560.12 | 1.5381 |
| 1.047 99 | 954.20 | 573.79 | 1.5983 | 130 | 1.045 50 | 956.48 | 577.31 | 1.5941 | 130 | 1.043 06 | 958.72 | 580.83 | 1.5898 |
| 1.052 36 | 950.25 | 594.64 | 1.6497 | 135 | 1.049 81 | 952.56 | 598.10 | 1.6453 | 135 | 1.047 30 | 954.83 | 601.58 | 1.6410 |
| 1.056 85 | 946.20 | 615.53 | 1.7006 | 140 | 1.054 24 | 948.55 | 618.93 | 1.6960 | 140 | 1.051 67 | 950.87 | 622.36 | 1.6916 |
| 1.061 49 | 942.08 | 636.45 | 1.7509 | 145 | 1.058 80 | 944.47 | 639.80 | 1.7462 | 145 | 1.056 16 | 946.82 | 643.17 | 1.7417 |
| 1.066 26 | 937.86 | 657.42 | 1.8008 | 150 | 1.063 49 | 940.30 | 660.71 | 1.7960 | 150 | 1.060 79 | 942.70 | 664.02 | 1.7912 |
| 1.071 17 | 933.56 | 678.42 | 1.8501 | 155 | 1.068 32 | 936.05 | 681.66 | 1.8452 | 155 | 1.065 54 | 938.49 | 684.91 | 1.8403 |
| 1.076 22 | 929.18 | 699.48 | 1.8990 | 160 | 1.073 29 | 931.71 | 702.65 | 1.8939 | 160 | 1.070 43 | 934.20 | 705.84 | 1.8889 |
| 1.081 42 | 924.71 | 720.58 | 1.9474 | 165 | 1.078 41 | 927.29 | 723.69 | 1.9422 | 165 | 1.075 46 | 929.83 | 726.82 | 1.9371 |
| 1.086 78 | 920.15 | 741.74 | 1.9955 | 170 | 1.083 67 | 922.79 | 744.78 | 1.9901 | 170 | 1.080 63 | 925.39 | 747.85 | 1.9848 |
| 1.092 29 | 915.51 | 762.96 | 2.0431 | 175 | 1.089 08 | 918.21 | 765.93 | 2.0375 | 175 | 1.085 94 | 920.86 | 768.93 | 2.0321 |
| 1.097 97 | 910.77 | 784.23 | 2.0903 | 180 | 1.094 65 | 913.54 | 787.13 | 2.0846 | 180 | 1.091 41 | 916.25 | 790.06 | 2.0790 |
| 1.103 81 | 905.95 | 805.57 | 2.1371 | 185 | 1.100 37 | 908.78 | 808.39 | 2.1312 | 185 | 1.097 03 | 911.55 | 811.25 | 2.1255 |
| 1.109 83 | 901.04 | 826.97 | 2.1836 | 190 | 1.106 27 | 903.94 | 829.72 | 2.1775 | 190 | 1.102 81 | 906.78 | 832.50 | 2.1716 |
| 1.116 03 | 896.04 | 848.45 | 2.2297 | 195 | 1.112 34 | 899.01 | 851.11 | 2.2235 | 195 | 1.108 75 | 901.92 | 853.81 | 2.2174 |
| 1.122 41 | 890.94 | 870.00 | 2.2755 | 200 | 1.118 58 | 893.99 | 872.57 | 2.2691 | 200 | 1.114 86 | 896.97 | 875.19 | 2.2628 |
| 1.135 78 | 880.46 | 913.34 | 2.3661 | 210 | 1.131 64 | 883.67 | 915.72 | 2.3593 | 210 | 1.127 63 | 886.82 | 918.16 | 2.3527 |
| 1.149 99 | 869.57 | 957.04 | 2.4556 | 220 | 1.145 50 | 872.98 | 959.21 | 2.4484 | 220 | 1.141 16 | 876.30 | 961.45 | 2.4414 |
| 1.165 14 | 858.27 | 1001.1 | 2.5442 | 230 | 1.160 24 | 861.89 | 1003.1 | 2.5364 | 230 | 1.155 53 | 865.41 | 1005.1 | 2.5289 |
| 1.181 31 | 846.52 | 1045.7 | 2.6318 | 240 | 1.175 95 | 850.38 | 1047.3 | 2.6236 | 240 | 1.170 80 | 854.12 | 1049.1 | 2.6156 |
| 1.198 63 | 834.29 | 1090.7 | 2.7187 | 250 | 1.192 72 | 838.42 | 1092.0 | 2.7099 | 250 | 1.187 07 | 842.41 | 1093.5 | 2.7013 |
| 1.217 23 | 821.54 | 1136.3 | 2.8050 | 260 | 1.210 68 | 825.98 | 1137.3 | 2.7955 | 260 | 1.204 44 | 830.26 | 1138.4 | 2.7864 |
| 1.237 27 | 808.23 | 1182.4 | 2.8908 | 270 | 1.229 97 | 813.03 | 1183.1 | 2.8806 | 270 | 1.223 05 | 817.63 | 1183.9 | 2.8708 |
| 1.258 95 | 794.31 | 1229.3 | 2.9764 | 280 | 1.250 76 | 799.51 | 1229.5 | 2.9653 | 280 | 1.243 03 | 804.48 | 1229.9 | 2.9547 |
| 1.282 52 | 779.72 | 1277.0 | 3.0618 | 290 | 1.273 25 | 785.39 | 1276.7 | 3.0498 | 290 | 1.264 57 | 790.78 | 1276.6 | 3.0383 |

Table 3. Compressed Water and Superheated Steam (continued)

| 40 MPa | | | | <i>t</i> , °C | 45 MPa | | | | <i>t</i> , °C | 50 MPa | | | |
|----------|----------|----------|----------|---------------|----------|----------|----------|----------|---------------|----------|----------|----------|----------|
| <i>v</i> | <i>ρ</i> | <i>h</i> | <i>s</i> | | <i>v</i> | <i>ρ</i> | <i>h</i> | <i>s</i> | | <i>v</i> | <i>ρ</i> | <i>h</i> | <i>s</i> |
| 1.3083 | 764.36 | 1325.6 | 3.1473 | 300 | 1.2977 | 770.59 | 1324.6 | 3.1342 | 300 | 1.2879 | 776.48 | 1324.0 | 3.1218 |
| 1.3366 | 748.16 | 1375.3 | 3.2332 | 310 | 1.3244 | 755.04 | 1373.5 | 3.2188 | 310 | 1.3132 | 761.50 | 1372.2 | 3.2052 |
| 1.3680 | 730.98 | 1426.2 | 3.3198 | 320 | 1.3538 | 738.65 | 1423.5 | 3.3038 | 320 | 1.3409 | 745.79 | 1421.4 | 3.2888 |
| 1.4032 | 712.68 | 1478.5 | 3.4073 | 330 | 1.3864 | 721.30 | 1474.7 | 3.3894 | 330 | 1.3713 | 729.25 | 1471.6 | 3.3728 |
| 1.4429 | 693.06 | 1532.6 | 3.4962 | 340 | 1.4228 | 702.86 | 1527.4 | 3.4760 | 340 | 1.4049 | 711.78 | 1523.1 | 3.4575 |
| 1.4884 | 671.86 | 1588.8 | 3.5871 | 350 | 1.4638 | 683.14 | 1581.8 | 3.5640 | 350 | 1.4425 | 693.25 | 1576.1 | 3.5431 |
| 1.5415 | 648.73 | 1647.7 | 3.6808 | 360 | 1.5108 | 661.92 | 1638.3 | 3.6539 | 360 | 1.4848 | 673.51 | 1630.7 | 3.6301 |
| 1.6046 | 623.20 | 1709.9 | 3.7783 | 370 | 1.5652 | 638.91 | 1697.3 | 3.7464 | 370 | 1.5329 | 652.36 | 1687.4 | 3.7189 |
| 1.6819 | 594.56 | 1776.6 | 3.8813 | 380 | 1.6294 | 613.71 | 1759.6 | 3.8425 | 380 | 1.5884 | 629.57 | 1746.5 | 3.8101 |
| 1.7801 | 561.77 | 1849.6 | 3.9921 | 390 | 1.7071 | 585.80 | 1825.9 | 3.9433 | 390 | 1.6534 | 604.83 | 1808.6 | 3.9045 |
| 1.9108 | 523.34 | 1931.4 | 4.1145 | 400 | 1.8034 | 554.49 | 1897.7 | 4.0507 | 400 | 1.7307 | 577.79 | 1874.4 | 4.0029 |
| 2.0934 | 477.69 | 2025.5 | 4.2533 | 410 | 1.9267 | 519.03 | 1976.4 | 4.1667 | 410 | 1.8247 | 548.02 | 1944.7 | 4.1066 |
| 2.3601 | 423.72 | 2136.4 | 4.4144 | 420 | 2.0879 | 478.95 | 2063.7 | 4.2937 | 420 | 1.9409 | 515.23 | 2020.5 | 4.2168 |
| 2.7437 | 364.47 | 2264.5 | 4.5979 | 430 | 2.3016 | 434.49 | 2161.1 | 4.4331 | 430 | 2.0856 | 479.47 | 2102.5 | 4.3342 |
| 3.2092 | 311.60 | 2394.2 | 4.7810 | 440 | 2.5808 | 387.47 | 2267.9 | 4.5839 | 440 | 2.2660 | 441.31 | 2190.8 | 4.4589 |
| 3.6915 | 270.89 | 2511.8 | 4.9448 | 450 | 2.9154 | 343.00 | 2377.6 | 4.7367 | 450 | 2.4873 | 402.04 | 2284.7 | 4.5896 |
| 4.1480 | 241.08 | 2613.4 | 5.0844 | 460 | 3.2774 | 305.12 | 2482.7 | 4.8810 | 460 | 2.7454 | 364.24 | 2380.7 | 4.7215 |
| 4.5662 | 219.00 | 2700.8 | 5.2028 | 470 | 3.6415 | 274.61 | 2579.0 | 5.0115 | 470 | 3.0272 | 330.34 | 2474.8 | 4.8489 |
| 4.9479 | 202.11 | 2777.1 | 5.3048 | 480 | 3.9922 | 250.49 | 2665.5 | 5.1272 | 480 | 3.3186 | 301.33 | 2563.8 | 4.9680 |
| 5.2985 | 188.73 | 2845.0 | 5.3944 | 490 | 4.3229 | 231.32 | 2743.1 | 5.2295 | 490 | 3.6085 | 277.13 | 2646.5 | 5.0771 |
| 5.6231 | 177.84 | 2906.5 | 5.4744 | 500 | 4.6330 | 215.84 | 2813.2 | 5.3207 | 500 | 3.8900 | 257.07 | 2722.6 | 5.1762 |
| 6.2116 | 160.99 | 3015.1 | 5.6132 | 520 | 5.1978 | 192.39 | 2935.7 | 5.4773 | 520 | 4.4168 | 226.41 | 2857.0 | 5.3479 |
| 6.7388 | 148.39 | 3110.4 | 5.7319 | 540 | 5.7027 | 175.36 | 3041.5 | 5.6091 | 540 | 4.8947 | 204.30 | 2972.8 | 5.4920 |
| 7.2209 | 138.49 | 3196.5 | 5.8365 | 560 | 6.1620 | 162.29 | 3135.8 | 5.7236 | 560 | 5.3308 | 187.59 | 3075.0 | 5.6163 |
| 7.6685 | 130.40 | 3275.9 | 5.9307 | 580 | 6.5861 | 151.83 | 3221.7 | 5.8255 | 580 | 5.7331 | 174.43 | 3167.4 | 5.7259 |
| 8.0891 | 123.62 | 3350.4 | 6.0170 | 600 | 6.9825 | 143.22 | 3301.5 | 5.9179 | 600 | 6.1081 | 163.72 | 3252.5 | 5.8245 |
| 8.4878 | 117.82 | 3421.0 | 6.0970 | 620 | 7.3565 | 135.93 | 3376.5 | 6.0029 | 620 | 6.4610 | 154.78 | 3332.0 | 5.9145 |
| 8.8686 | 112.76 | 3488.7 | 6.1719 | 640 | 7.7122 | 129.66 | 3447.9 | 6.0820 | 640 | 6.7956 | 147.16 | 3407.2 | 5.9978 |
| 9.2344 | 108.29 | 3554.0 | 6.2427 | 660 | 8.0527 | 124.18 | 3516.4 | 6.1562 | 660 | 7.1149 | 140.55 | 3478.9 | 6.0755 |
| 9.5875 | 104.30 | 3617.4 | 6.3098 | 680 | 8.3802 | 119.33 | 3582.5 | 6.2263 | 680 | 7.4213 | 134.75 | 3547.9 | 6.1486 |
| 9.9297 | 100.71 | 3679.1 | 6.3740 | 700 | 8.6967 | 114.99 | 3646.8 | 6.2930 | 700 | 7.7166 | 129.59 | 3614.6 | 6.2178 |
| 10.263 | 97.442 | 3739.6 | 6.4355 | 720 | 9.0037 | 111.06 | 3709.4 | 6.3568 | 720 | 8.0025 | 124.96 | 3679.4 | 6.2838 |
| 10.587 | 94.454 | 3799.1 | 6.4948 | 740 | 9.3025 | 107.50 | 3770.8 | 6.4179 | 740 | 8.2801 | 120.77 | 3742.7 | 6.3469 |
| 10.905 | 91.705 | 3857.6 | 6.5520 | 760 | 9.5939 | 104.23 | 3831.1 | 6.4769 | 760 | 8.5504 | 116.95 | 3804.8 | 6.4076 |
| 11.216 | 89.162 | 3915.4 | 6.6074 | 780 | 9.8789 | 101.23 | 3890.5 | 6.5338 | 780 | 8.8143 | 113.45 | 3865.7 | 6.4660 |
| 11.521 | 86.799 | 3972.6 | 6.6612 | 800 | 10.158 | 98.443 | 3949.1 | 6.5889 | 800 | 9.0724 | 110.22 | 3925.8 | 6.5225 |
| 11.821 | 84.595 | 4029.3 | 6.7136 | 820 | 10.432 | 95.855 | 4007.1 | 6.6425 | 820 | 9.3255 | 107.23 | 3985.1 | 6.5773 |
| 12.117 | 82.531 | 4085.6 | 6.7646 | 840 | 10.702 | 93.441 | 4064.6 | 6.6946 | 840 | 9.5741 | 104.45 | 4043.8 | 6.6304 |
| 12.408 | 80.592 | 4141.5 | 6.8144 | 860 | 10.967 | 91.179 | 4121.6 | 6.7454 | 860 | 9.8185 | 101.85 | 4101.9 | 6.6822 |
| 12.696 | 78.765 | 4197.1 | 6.8630 | 880 | 11.229 | 89.054 | 4178.2 | 6.7949 | 880 | 10.059 | 99.412 | 4159.5 | 6.7326 |
| 12.980 | 77.040 | 4252.5 | 6.9106 | 900 | 11.487 | 87.052 | 4234.6 | 6.8433 | 900 | 10.296 | 97.121 | 4216.8 | 6.7819 |
| 13.261 | 75.407 | 4307.7 | 6.9573 | 920 | 11.743 | 85.161 | 4290.7 | 6.8907 | 920 | 10.531 | 94.962 | 4273.8 | 6.8300 |
| 13.540 | 73.857 | 4362.7 | 7.0030 | 940 | 11.995 | 83.369 | 4346.5 | 6.9372 | 940 | 10.762 | 92.921 | 4330.5 | 6.8772 |
| 13.815 | 72.383 | 4417.7 | 7.0480 | 960 | 12.244 | 81.669 | 4402.2 | 6.9827 | 960 | 10.991 | 90.987 | 4387.0 | 6.9233 |
| 14.089 | 70.979 | 4472.5 | 7.0921 | 980 | 12.492 | 80.053 | 4457.8 | 7.0274 | 980 | 11.217 | 89.151 | 4443.2 | 6.9686 |
| 14.360 | 69.640 | 4527.3 | 7.1355 | 1000 | 12.737 | 78.513 | 4513.3 | 7.0713 | 1000 | 11.441 | 87.405 | 4499.4 | 7.0131 |
| 15.686 | 63.750 | 4801.1 | 7.3425 | 1100 | 13.934 | 71.769 | 4789.9 | 7.2805 | 1100 | 12.534 | 79.785 | 4778.9 | 7.2244 |
| 16.976 | 58.907 | 5075.9 | 7.5357 | 1200 | 15.094 | 66.251 | 5066.9 | 7.4753 | 1200 | 13.590 | 73.583 | 5058.1 | 7.4207 |
| 18.239 | 54.827 | 5352.8 | 7.7175 | 1300 | 16.228 | 61.623 | 5345.6 | 7.6583 | 1300 | 14.620 | 68.399 | 5338.4 | 7.6048 |
| 19.482 | 51.330 | 5632.3 | 7.8897 | 1400 | 17.342 | 57.665 | 5626.5 | 7.8314 | 1400 | 15.631 | 63.977 | 5620.8 | 7.7788 |
| 20.709 | 48.288 | 5914.6 | 8.0536 | 1500 | 18.440 | 54.229 | 5910.0 | 7.9959 | 1500 | 16.626 | 60.147 | 5905.4 | 7.9440 |
| 21.925 | 45.611 | 6199.9 | 8.2101 | 1600 | 19.527 | 51.212 | 6196.2 | 8.1529 | 1600 | 17.609 | 56.788 | 6192.6 | 8.1015 |
| 24.328 | 41.105 | 6778.7 | 8.5037 | 1800 | 21.673 | 46.141 | 6776.6 | 8.4473 | 1800 | 19.549 | 51.153 | 6774.5 | 8.3967 |
| 26.705 | 37.446 | 7368.1 | 8.7750 | 2000 | 23.793 | 42.030 | 7367.1 | 8.7192 | 2000 | 21.464 | 46.590 | 7366.2 | 8.6691 |

Table 3. Compressed Water and Superheated Steam (continued)

| 60 MPa | | | | $t, ^\circ\text{C}$ | 70 MPa | | | | $t, ^\circ\text{C}$ | 80 MPa | | | |
|----------|---------|--------|-----------|---------------------|----------|---------|--------|-----------|---------------------|----------|---------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 0.972 47 | 1028.30 | 58.58 | -0.002 08 | 0 | 0.968 34 | 1032.69 | 67.93 | -0.003 38 | 0 | 0.964 34 | 1036.98 | 77.18 | -0.004 89 |
| 0.973 18 | 1027.56 | 78.60 | 0.070 53 | 5 | 0.969 16 | 1031.82 | 87.83 | 0.068 79 | 5 | 0.965 25 | 1036.00 | 96.96 | 0.066 86 |
| 0.974 11 | 1026.58 | 98.67 | 0.142 04 | 10 | 0.970 17 | 1030.75 | 107.78 | 0.139 90 | 10 | 0.966 34 | 1034.83 | 116.82 | 0.137 61 |
| 0.975 24 | 1025.39 | 118.78 | 0.212 46 | 15 | 0.971 37 | 1029.48 | 127.80 | 0.209 96 | 15 | 0.967 60 | 1033.48 | 136.73 | 0.207 33 |
| 0.976 54 | 1024.02 | 138.94 | 0.281 80 | 20 | 0.972 73 | 1028.03 | 147.85 | 0.278 97 | 20 | 0.969 02 | 1031.97 | 156.70 | 0.276 04 |
| 0.978 02 | 1022.48 | 159.13 | 0.350 09 | 25 | 0.974 25 | 1026.43 | 167.95 | 0.346 94 | 25 | 0.970 57 | 1030.32 | 176.72 | 0.343 73 |
| 0.979 65 | 1020.77 | 179.35 | 0.417 34 | 30 | 0.975 91 | 1024.69 | 188.08 | 0.413 91 | 30 | 0.972 26 | 1028.53 | 196.77 | 0.410 42 |
| 0.981 43 | 1018.92 | 199.59 | 0.483 59 | 35 | 0.977 71 | 1022.80 | 208.24 | 0.479 87 | 35 | 0.974 08 | 1026.61 | 216.85 | 0.476 13 |
| 0.983 34 | 1016.94 | 219.86 | 0.548 85 | 40 | 0.979 64 | 1020.79 | 228.43 | 0.544 87 | 40 | 0.976 02 | 1024.56 | 236.96 | 0.540 87 |
| 0.985 40 | 1014.82 | 240.16 | 0.613 14 | 45 | 0.981 69 | 1018.65 | 248.65 | 0.608 90 | 45 | 0.978 08 | 1022.41 | 257.10 | 0.604 67 |
| 0.987 58 | 1012.58 | 260.47 | 0.676 50 | 50 | 0.983 87 | 1016.39 | 268.88 | 0.672 01 | 50 | 0.980 26 | 1020.14 | 277.26 | 0.667 55 |
| 0.989 89 | 1010.22 | 280.81 | 0.738 94 | 55 | 0.986 17 | 1014.03 | 289.14 | 0.734 22 | 55 | 0.982 54 | 1017.77 | 297.44 | 0.729 52 |
| 0.992 32 | 1007.74 | 301.16 | 0.800 49 | 60 | 0.988 58 | 1011.55 | 309.41 | 0.795 53 | 60 | 0.984 94 | 1015.29 | 317.64 | 0.790 61 |
| 0.994 86 | 1005.16 | 321.53 | 0.861 17 | 65 | 0.991 10 | 1008.98 | 329.70 | 0.855 99 | 65 | 0.987 44 | 1012.72 | 337.86 | 0.850 85 |
| 0.997 53 | 1002.48 | 341.91 | 0.921 01 | 70 | 0.993 74 | 1006.30 | 350.01 | 0.915 60 | 70 | 0.990 05 | 1010.05 | 358.09 | 0.910 25 |
| 1.000 31 | 999.69 | 362.31 | 0.980 04 | 75 | 0.996 48 | 1003.53 | 370.33 | 0.974 40 | 75 | 0.992 76 | 1007.29 | 378.34 | 0.968 84 |
| 1.003 21 | 996.80 | 382.73 | 1.0383 | 80 | 0.999 34 | 1000.66 | 390.67 | 1.0324 | 80 | 0.995 57 | 1004.45 | 398.61 | 1.0266 |
| 1.006 21 | 993.82 | 403.16 | 1.0957 | 85 | 1.002 30 | 997.71 | 411.03 | 1.0896 | 85 | 0.998 49 | 1001.51 | 418.89 | 1.0837 |
| 1.009 33 | 990.75 | 423.61 | 1.1524 | 90 | 1.005 36 | 994.66 | 431.40 | 1.1461 | 90 | 1.001 51 | 998.50 | 439.18 | 1.1399 |
| 1.012 57 | 987.59 | 444.08 | 1.2084 | 95 | 1.008 54 | 991.54 | 451.78 | 1.2019 | 95 | 1.004 63 | 995.40 | 459.50 | 1.1955 |
| 1.015 91 | 984.34 | 464.56 | 1.2637 | 100 | 1.011 81 | 988.32 | 472.19 | 1.2569 | 100 | 1.007 84 | 992.22 | 479.82 | 1.2503 |
| 1.019 36 | 981.01 | 485.06 | 1.3182 | 105 | 1.015 20 | 985.03 | 492.61 | 1.3113 | 105 | 1.011 16 | 988.96 | 500.17 | 1.3045 |
| 1.022 92 | 977.59 | 505.59 | 1.3721 | 110 | 1.018 69 | 981.65 | 513.05 | 1.3650 | 110 | 1.014 58 | 985.63 | 520.53 | 1.3580 |
| 1.026 60 | 974.09 | 526.13 | 1.4254 | 115 | 1.022 28 | 978.20 | 533.51 | 1.4180 | 115 | 1.018 10 | 982.22 | 540.91 | 1.4108 |
| 1.030 39 | 970.51 | 546.70 | 1.4781 | 120 | 1.025 99 | 974.67 | 553.99 | 1.4705 | 120 | 1.021 73 | 978.73 | 561.31 | 1.4630 |
| 1.034 29 | 966.85 | 567.29 | 1.5301 | 125 | 1.029 80 | 971.07 | 574.50 | 1.5223 | 125 | 1.025 45 | 975.18 | 581.73 | 1.5147 |
| 1.038 30 | 963.11 | 587.91 | 1.5816 | 130 | 1.033 71 | 967.39 | 595.03 | 1.5735 | 130 | 1.029 28 | 971.55 | 602.18 | 1.5657 |
| 1.042 43 | 959.29 | 608.56 | 1.6325 | 135 | 1.037 74 | 963.63 | 615.58 | 1.6242 | 135 | 1.033 21 | 967.86 | 622.65 | 1.6162 |
| 1.046 68 | 955.40 | 629.24 | 1.6828 | 140 | 1.041 88 | 959.80 | 636.17 | 1.6743 | 140 | 1.037 25 | 964.09 | 643.14 | 1.6661 |
| 1.051 05 | 951.43 | 649.95 | 1.7327 | 145 | 1.046 13 | 955.90 | 656.78 | 1.7239 | 145 | 1.041 39 | 960.25 | 663.66 | 1.7154 |
| 1.055 54 | 947.38 | 670.69 | 1.7820 | 150 | 1.050 50 | 951.93 | 677.43 | 1.7730 | 150 | 1.045 64 | 956.35 | 684.21 | 1.7643 |
| 1.060 15 | 943.26 | 691.47 | 1.8308 | 155 | 1.054 98 | 947.89 | 698.10 | 1.8216 | 155 | 1.050 00 | 952.38 | 704.80 | 1.8126 |
| 1.064 89 | 939.06 | 712.29 | 1.8792 | 160 | 1.059 58 | 943.77 | 718.82 | 1.8697 | 160 | 1.054 47 | 948.34 | 725.41 | 1.8605 |
| 1.069 76 | 934.79 | 733.16 | 1.9270 | 165 | 1.064 30 | 939.59 | 739.57 | 1.9173 | 165 | 1.059 06 | 944.24 | 746.06 | 1.9079 |
| 1.074 76 | 930.44 | 754.06 | 1.9745 | 170 | 1.069 14 | 935.33 | 760.36 | 1.9645 | 170 | 1.063 76 | 940.06 | 766.74 | 1.9549 |
| 1.079 89 | 926.02 | 775.01 | 2.0215 | 175 | 1.074 11 | 931.00 | 781.19 | 2.0113 | 175 | 1.068 58 | 935.82 | 787.47 | 2.0014 |
| 1.085 17 | 921.52 | 796.01 | 2.0681 | 180 | 1.079 21 | 926.60 | 802.07 | 2.0576 | 180 | 1.073 52 | 931.52 | 808.23 | 2.0474 |
| 1.090 58 | 916.94 | 817.06 | 2.1143 | 185 | 1.084 44 | 922.13 | 823.00 | 2.1035 | 185 | 1.078 58 | 927.14 | 829.04 | 2.0931 |
| 1.096 15 | 912.29 | 838.17 | 2.1601 | 190 | 1.089 81 | 917.59 | 843.97 | 2.1490 | 190 | 1.083 77 | 922.70 | 849.89 | 2.1384 |
| 1.101 86 | 907.56 | 859.33 | 2.2056 | 195 | 1.095 32 | 912.97 | 864.99 | 2.1942 | 195 | 1.089 09 | 918.20 | 870.78 | 2.1832 |
| 1.107 73 | 902.74 | 880.55 | 2.2507 | 200 | 1.100 97 | 908.29 | 886.07 | 2.2390 | 200 | 1.094 54 | 913.62 | 891.73 | 2.2277 |
| 1.119 97 | 892.88 | 923.19 | 2.3398 | 210 | 1.112 73 | 898.69 | 928.40 | 2.3275 | 210 | 1.105 87 | 904.27 | 933.78 | 2.3157 |
| 1.132 89 | 882.69 | 966.10 | 2.4277 | 220 | 1.125 12 | 888.80 | 970.98 | 2.4147 | 220 | 1.117 77 | 894.64 | 976.05 | 2.4023 |
| 1.146 57 | 872.17 | 1009.3 | 2.5145 | 230 | 1.138 19 | 878.59 | 1013.8 | 2.5008 | 230 | 1.130 30 | 884.72 | 1018.6 | 2.4876 |
| 1.161 06 | 861.28 | 1052.9 | 2.6002 | 240 | 1.151 99 | 868.06 | 1057.0 | 2.5857 | 240 | 1.143 49 | 874.52 | 1061.4 | 2.5718 |
| 1.176 43 | 850.03 | 1096.8 | 2.6850 | 250 | 1.166 58 | 857.21 | 1100.5 | 2.6696 | 250 | 1.157 39 | 864.01 | 1104.4 | 2.6550 |
| 1.192 77 | 838.38 | 1141.1 | 2.7690 | 260 | 1.182 03 | 846.00 | 1144.3 | 2.7526 | 260 | 1.172 07 | 853.19 | 1147.8 | 2.7371 |
| 1.210 18 | 826.32 | 1185.9 | 2.8522 | 270 | 1.198 41 | 834.44 | 1188.5 | 2.8348 | 270 | 1.187 57 | 842.06 | 1191.5 | 2.8184 |
| 1.228 76 | 813.83 | 1231.2 | 2.9348 | 280 | 1.215 82 | 822.49 | 1233.2 | 2.9162 | 280 | 1.203 97 | 830.58 | 1235.6 | 2.8988 |
| 1.248 66 | 800.86 | 1277.0 | 3.0169 | 290 | 1.234 36 | 810.14 | 1278.3 | 2.9970 | 290 | 1.221 36 | 818.76 | 1280.1 | 2.9785 |

Table 3. Compressed Water and Superheated Steam (continued)

| 60 MPa | | | | <i>t</i> , °C | 70 MPa | | | | <i>t</i> , °C | 80 MPa | | | |
|----------|--------|----------|----------|---------------|----------|--------|----------|----------|---------------|----------|--------|----------|----------|
| <i>v</i> | ρ | <i>h</i> | <i>s</i> | | <i>v</i> | ρ | <i>h</i> | <i>s</i> | | <i>v</i> | ρ | <i>h</i> | <i>s</i> |
| 1.2700 | 787.39 | 1323.5 | 3.0986 | 300 | 1.2541 | 797.36 | 1323.9 | 3.0773 | 300 | 1.2398 | 806.57 | 1325.1 | 3.0576 |
| 1.2930 | 773.38 | 1370.6 | 3.1801 | 310 | 1.2753 | 784.13 | 1370.1 | 3.1572 | 310 | 1.2595 | 793.99 | 1370.5 | 3.1362 |
| 1.3179 | 758.78 | 1418.4 | 3.2615 | 320 | 1.2980 | 770.42 | 1416.9 | 3.2368 | 320 | 1.2804 | 781.01 | 1416.4 | 3.2142 |
| 1.3449 | 743.54 | 1467.1 | 3.3429 | 330 | 1.3224 | 756.19 | 1464.3 | 3.3162 | 330 | 1.3028 | 767.60 | 1462.9 | 3.2919 |
| 1.3744 | 727.60 | 1516.8 | 3.4245 | 340 | 1.3488 | 741.41 | 1512.6 | 3.3954 | 340 | 1.3267 | 753.73 | 1510.0 | 3.3694 |
| 1.4067 | 710.88 | 1567.5 | 3.5065 | 350 | 1.3774 | 726.03 | 1561.6 | 3.4748 | 350 | 1.3525 | 739.39 | 1557.7 | 3.4466 |
| 1.4423 | 693.31 | 1619.4 | 3.5892 | 360 | 1.4084 | 710.01 | 1611.6 | 3.5543 | 360 | 1.3802 | 724.54 | 1606.2 | 3.5238 |
| 1.4819 | 674.80 | 1672.7 | 3.6727 | 370 | 1.4424 | 693.29 | 1662.6 | 3.6342 | 370 | 1.4101 | 709.16 | 1655.5 | 3.6010 |
| 1.5262 | 655.22 | 1727.6 | 3.7574 | 380 | 1.4797 | 675.83 | 1714.7 | 3.7147 | 380 | 1.4426 | 693.21 | 1705.6 | 3.6784 |
| 1.5761 | 634.47 | 1784.3 | 3.8436 | 390 | 1.5208 | 657.55 | 1768.1 | 3.7958 | 390 | 1.4778 | 676.66 | 1756.7 | 3.7560 |
| 1.6329 | 612.42 | 1843.2 | 3.9317 | 400 | 1.5664 | 638.41 | 1822.9 | 3.8779 | 400 | 1.5163 | 659.49 | 1808.8 | 3.8340 |
| 1.6981 | 588.91 | 1904.5 | 4.0221 | 410 | 1.6172 | 618.35 | 1879.3 | 3.9610 | 410 | 1.5584 | 641.66 | 1862.0 | 3.9125 |
| 1.7736 | 563.83 | 1968.6 | 4.1153 | 420 | 1.6741 | 597.32 | 1937.5 | 4.0455 | 420 | 1.6047 | 623.17 | 1916.5 | 3.9916 |
| 1.8618 | 537.13 | 2035.9 | 4.2116 | 430 | 1.7382 | 575.30 | 1997.5 | 4.1315 | 430 | 1.6556 | 604.01 | 1972.2 | 4.0714 |
| 1.9650 | 508.91 | 2106.4 | 4.3112 | 440 | 1.8106 | 552.30 | 2059.6 | 4.2192 | 440 | 1.7118 | 584.18 | 2029.3 | 4.1520 |
| 2.0855 | 479.51 | 2180.2 | 4.4140 | 450 | 1.8924 | 528.42 | 2123.7 | 4.3084 | 450 | 1.7739 | 563.74 | 2087.8 | 4.2335 |
| 2.2249 | 449.46 | 2256.8 | 4.5191 | 460 | 1.9846 | 503.89 | 2189.7 | 4.3991 | 460 | 1.8424 | 542.77 | 2147.6 | 4.3156 |
| 2.3839 | 419.48 | 2335.5 | 4.6257 | 470 | 2.0877 | 478.99 | 2257.5 | 4.4909 | 470 | 1.9179 | 521.40 | 2208.7 | 4.3984 |
| 2.5610 | 390.48 | 2415.0 | 4.7320 | 480 | 2.2022 | 454.10 | 2326.4 | 4.5831 | 480 | 2.0006 | 499.84 | 2270.9 | 4.4815 |
| 2.7521 | 363.36 | 2493.7 | 4.8358 | 490 | 2.3277 | 429.62 | 2396.2 | 4.6751 | 490 | 2.0907 | 478.30 | 2333.9 | 4.5647 |
| 2.9522 | 338.73 | 2570.3 | 4.9356 | 500 | 2.4632 | 405.97 | 2466.1 | 4.7660 | 500 | 2.1880 | 457.04 | 2397.4 | 4.6473 |
| 3.3617 | 297.47 | 2713.9 | 5.1189 | 520 | 2.7572 | 362.69 | 2603.3 | 4.9412 | 520 | 2.4024 | 416.25 | 2524.6 | 4.8097 |
| 3.7624 | 265.79 | 2842.7 | 5.2794 | 540 | 3.0673 | 326.02 | 2733.3 | 5.1032 | 540 | 2.6376 | 379.14 | 2649.3 | 4.9650 |
| 4.1422 | 241.42 | 2957.9 | 5.4193 | 560 | 3.3790 | 295.95 | 2854.0 | 5.2499 | 560 | 2.8846 | 346.66 | 2768.9 | 5.1104 |
| 4.4986 | 222.29 | 3061.8 | 5.5426 | 580 | 3.6829 | 271.52 | 2965.1 | 5.3816 | 580 | 3.1354 | 318.94 | 2882.0 | 5.2445 |
| 4.8330 | 206.91 | 3156.8 | 5.6527 | 600 | 3.9749 | 251.58 | 3067.4 | 5.5002 | 600 | 3.3838 | 295.53 | 2988.1 | 5.3674 |
| 5.1482 | 194.24 | 3244.8 | 5.7524 | 620 | 4.2538 | 235.09 | 3162.3 | 5.6077 | 620 | 3.6262 | 275.77 | 3087.5 | 5.4800 |
| 5.4468 | 183.59 | 3327.2 | 5.8437 | 640 | 4.5198 | 221.25 | 3251.1 | 5.7060 | 640 | 3.8609 | 259.01 | 3180.8 | 5.5834 |
| 5.7312 | 174.48 | 3405.3 | 5.9282 | 660 | 4.7742 | 209.46 | 3334.8 | 5.7966 | 660 | 4.0874 | 244.66 | 3269.0 | 5.6789 |
| 6.0033 | 166.57 | 3479.7 | 6.0071 | 680 | 5.0179 | 199.29 | 3414.3 | 5.8809 | 680 | 4.3058 | 232.25 | 3352.8 | 5.7677 |
| 6.2649 | 159.62 | 3551.3 | 6.0814 | 700 | 5.2523 | 190.39 | 3490.3 | 5.9599 | 700 | 4.5165 | 221.41 | 3432.7 | 5.8507 |
| 6.5174 | 153.44 | 3620.4 | 6.1518 | 720 | 5.4784 | 182.53 | 3563.5 | 6.0343 | 720 | 4.7202 | 211.85 | 3509.5 | 5.9288 |
| 6.7618 | 147.89 | 3687.5 | 6.2187 | 740 | 5.6971 | 175.53 | 3634.3 | 6.1049 | 740 | 4.9175 | 203.36 | 3583.6 | 6.0027 |
| 6.9992 | 142.87 | 3753.0 | 6.2827 | 760 | 5.9093 | 169.23 | 3703.0 | 6.1721 | 760 | 5.1089 | 195.73 | 3655.3 | 6.0728 |
| 7.2304 | 138.31 | 3817.1 | 6.3441 | 780 | 6.1156 | 163.52 | 3770.1 | 6.2364 | 780 | 5.2951 | 188.85 | 3725.1 | 6.1397 |
| 7.4560 | 134.12 | 3880.0 | 6.4033 | 800 | 6.3167 | 158.31 | 3835.7 | 6.2981 | 800 | 5.4765 | 182.60 | 3793.3 | 6.2038 |
| 7.6766 | 130.27 | 3941.9 | 6.4604 | 820 | 6.5130 | 153.54 | 3900.1 | 6.3576 | 820 | 5.6536 | 176.88 | 3860.0 | 6.2654 |
| 7.8928 | 126.70 | 4002.9 | 6.5158 | 840 | 6.7052 | 149.14 | 3963.4 | 6.4150 | 840 | 5.8267 | 171.62 | 3925.4 | 6.3248 |
| 8.1050 | 123.38 | 4063.2 | 6.5694 | 860 | 6.8935 | 145.06 | 4025.8 | 6.4705 | 860 | 5.9963 | 166.77 | 3989.8 | 6.3821 |
| 8.3136 | 120.29 | 4122.9 | 6.6217 | 880 | 7.0783 | 141.28 | 4087.4 | 6.5244 | 880 | 6.1625 | 162.27 | 4053.3 | 6.4376 |
| 8.5188 | 117.39 | 4182.0 | 6.6725 | 900 | 7.2599 | 137.74 | 4148.3 | 6.5768 | 900 | 6.3258 | 158.08 | 4115.9 | 6.4915 |
| 8.7210 | 114.67 | 4240.7 | 6.7221 | 920 | 7.4387 | 134.43 | 4208.7 | 6.6279 | 920 | 6.4864 | 154.17 | 4177.9 | 6.5439 |
| 8.9204 | 112.10 | 4299.0 | 6.7706 | 940 | 7.6148 | 131.32 | 4268.6 | 6.6776 | 940 | 6.6444 | 150.50 | 4239.3 | 6.5949 |
| 9.1173 | 109.68 | 4357.0 | 6.8180 | 960 | 7.7884 | 128.40 | 4328.0 | 6.7262 | 960 | 6.8001 | 147.06 | 4300.1 | 6.6446 |
| 9.3119 | 107.39 | 4414.7 | 6.8644 | 980 | 7.9598 | 125.63 | 4387.1 | 6.7737 | 980 | 6.9537 | 143.81 | 4360.5 | 6.6932 |
| 9.5043 | 105.22 | 4472.2 | 6.9099 | 1000 | 8.1291 | 123.01 | 4445.9 | 6.8203 | 1000 | 7.1053 | 140.74 | 4420.5 | 6.7407 |
| 10.439 | 95.794 | 4757.3 | 7.1255 | 1100 | 8.9494 | 111.74 | 4736.4 | 7.0399 | 1100 | 7.8381 | 127.58 | 4716.2 | 6.9643 |
| 11.339 | 88.195 | 5040.8 | 7.3248 | 1200 | 9.7356 | 102.72 | 5024.0 | 7.2421 | 1200 | 8.5381 | 117.12 | 5007.9 | 7.1693 |
| 12.212 | 81.884 | 5324.5 | 7.5111 | 1300 | 10.497 | 95.266 | 5311.1 | 7.4307 | 1300 | 9.2143 | 108.53 | 5298.1 | 7.3600 |
| 13.067 | 76.528 | 5609.6 | 7.6868 | 1400 | 11.240 | 88.970 | 5598.8 | 7.6080 | 1400 | 9.8724 | 101.29 | 5588.4 | 7.5389 |
| 13.907 | 71.906 | 5896.5 | 7.8533 | 1500 | 11.968 | 83.556 | 5887.9 | 7.7758 | 1500 | 10.517 | 95.087 | 5879.7 | 7.7080 |
| 14.735 | 67.864 | 6185.6 | 8.0119 | 1600 | 12.685 | 78.832 | 6178.9 | 7.9354 | 1600 | 11.150 | 89.687 | 6172.5 | 7.8686 |
| 16.366 | 61.103 | 6770.5 | 8.3086 | 1800 | 14.094 | 70.953 | 6766.7 | 8.2336 | 1800 | 12.392 | 80.698 | 6763.2 | 8.1682 |
| 17.971 | 55.644 | 7364.4 | 8.5820 | 2000 | 15.478 | 64.606 | 7362.8 | 8.5081 | 2000 | 13.610 | 73.475 | 7361.4 | 8.4436 |

Table 3. Compressed Water and Superheated Steam (continued)

| 90 MPa | | | | t, °C | 100 MPa | | | | t, °C | 120 MPa | | | |
|----------|---------|--------|-----------|-------|----------|---------|--------|-----------|-------|----------|---------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 0.960 45 | 1041.17 | 86.34 | -0.006 61 | 0 | 0.956 68 | 1045.28 | 95.40 | -0.008 51 | 0 | 0.949 47 | 1053.22 | 113.29 | -0.012 82 |
| 0.961 45 | 1040.09 | 106.01 | 0.064 77 | 5 | 0.957 76 | 1044.10 | 114.99 | 0.062 52 | 5 | 0.950 69 | 1051.87 | 132.70 | 0.057 61 |
| 0.962 62 | 1038.83 | 125.78 | 0.135 18 | 10 | 0.959 00 | 1042.75 | 134.66 | 0.132 63 | 10 | 0.952 04 | 1050.37 | 152.22 | 0.127 17 |
| 0.963 94 | 1037.41 | 145.60 | 0.204 60 | 15 | 0.960 37 | 1041.26 | 154.41 | 0.201 76 | 15 | 0.953 52 | 1048.75 | 171.83 | 0.195 81 |
| 0.965 40 | 1035.84 | 165.49 | 0.273 02 | 20 | 0.961 88 | 1039.63 | 174.22 | 0.269 92 | 20 | 0.955 11 | 1047.00 | 191.51 | 0.263 50 |
| 0.967 00 | 1034.13 | 185.42 | 0.340 45 | 25 | 0.963 51 | 1037.87 | 194.08 | 0.337 10 | 25 | 0.956 80 | 1045.15 | 211.24 | 0.330 24 |
| 0.968 71 | 1032.30 | 205.40 | 0.406 88 | 30 | 0.965 25 | 1036.00 | 213.98 | 0.403 31 | 30 | 0.958 59 | 1043.20 | 231.01 | 0.396 02 |
| 0.970 55 | 1030.34 | 225.41 | 0.472 35 | 35 | 0.967 11 | 1034.01 | 233.92 | 0.468 55 | 35 | 0.960 47 | 1041.15 | 250.83 | 0.460 86 |
| 0.972 50 | 1028.27 | 245.45 | 0.536 86 | 40 | 0.969 07 | 1031.92 | 253.90 | 0.532 84 | 40 | 0.962 45 | 1039.01 | 270.68 | 0.524 76 |
| 0.974 57 | 1026.10 | 265.51 | 0.600 44 | 45 | 0.971 14 | 1029.72 | 273.90 | 0.596 20 | 45 | 0.964 53 | 1036.78 | 290.56 | 0.587 73 |
| 0.976 74 | 1023.82 | 285.61 | 0.663 09 | 50 | 0.973 30 | 1027.43 | 293.92 | 0.658 65 | 50 | 0.966 69 | 1034.46 | 310.46 | 0.649 80 |
| 0.979 01 | 1021.44 | 305.72 | 0.724 85 | 55 | 0.975 57 | 1025.04 | 313.97 | 0.720 21 | 55 | 0.968 94 | 1032.06 | 330.39 | 0.710 99 |
| 0.981 39 | 1018.96 | 325.85 | 0.785 74 | 60 | 0.977 94 | 1022.56 | 334.03 | 0.780 89 | 60 | 0.971 27 | 1029.58 | 350.33 | 0.771 31 |
| 0.983 87 | 1016.39 | 346.00 | 0.845 77 | 65 | 0.980 40 | 1020.00 | 354.11 | 0.840 73 | 65 | 0.973 70 | 1027.01 | 370.29 | 0.830 78 |
| 0.986 45 | 1013.73 | 366.16 | 0.904 96 | 70 | 0.982 95 | 1017.34 | 374.21 | 0.899 73 | 70 | 0.976 21 | 1024.37 | 390.27 | 0.889 42 |
| 0.989 13 | 1010.99 | 386.34 | 0.963 35 | 75 | 0.985 60 | 1014.61 | 394.33 | 0.957 92 | 75 | 0.978 80 | 1021.66 | 410.26 | 0.947 26 |
| 0.991 91 | 1008.15 | 406.54 | 1.020 9 | 80 | 0.988 35 | 1011.79 | 414.45 | 1.015 3 | 80 | 0.981 48 | 1018.87 | 430.26 | 1.004 3 |
| 0.994 79 | 1005.24 | 426.75 | 1.077 8 | 85 | 0.991 18 | 1008.90 | 434.60 | 1.072 0 | 85 | 0.984 25 | 1016.01 | 450.28 | 1.060 6 |
| 0.997 76 | 1002.25 | 446.97 | 1.133 8 | 90 | 0.994 11 | 1005.93 | 454.75 | 1.127 9 | 90 | 0.987 09 | 1013.08 | 470.31 | 1.116 1 |
| 1.000 82 | 999.18 | 467.21 | 1.189 2 | 95 | 0.997 13 | 1002.88 | 474.92 | 1.183 0 | 95 | 0.990 02 | 1010.08 | 490.35 | 1.170 9 |
| 1.003 99 | 996.03 | 487.46 | 1.243 8 | 100 | 1.000 24 | 999.76 | 495.11 | 1.237 5 | 100 | 0.993 04 | 1007.01 | 510.41 | 1.225 1 |
| 1.007 25 | 992.81 | 507.73 | 1.297 8 | 105 | 1.003 44 | 996.57 | 515.31 | 1.291 3 | 105 | 0.996 14 | 1003.88 | 530.47 | 1.278 5 |
| 1.010 60 | 989.51 | 528.02 | 1.351 1 | 110 | 1.006 73 | 993.31 | 535.53 | 1.344 4 | 110 | 0.999 32 | 1000.68 | 550.56 | 1.331 2 |
| 1.014 05 | 986.14 | 548.33 | 1.403 8 | 115 | 1.010 12 | 989.98 | 555.76 | 1.396 8 | 115 | 1.002 59 | 997.42 | 570.65 | 1.383 3 |
| 1.017 60 | 982.70 | 568.65 | 1.455 8 | 120 | 1.013 60 | 986.58 | 576.01 | 1.448 7 | 120 | 1.005 94 | 994.10 | 590.77 | 1.434 8 |
| 1.021 25 | 979.20 | 588.99 | 1.507 2 | 125 | 1.017 17 | 983.12 | 596.27 | 1.499 9 | 125 | 1.009 37 | 990.72 | 610.89 | 1.485 7 |
| 1.024 99 | 975.62 | 609.36 | 1.558 0 | 130 | 1.020 83 | 979.59 | 616.56 | 1.550 5 | 130 | 1.012 89 | 987.28 | 631.04 | 1.536 0 |
| 1.028 83 | 971.98 | 629.74 | 1.608 3 | 135 | 1.024 59 | 976.00 | 636.87 | 1.600 6 | 135 | 1.016 49 | 983.77 | 651.20 | 1.585 7 |
| 1.032 77 | 968.27 | 650.15 | 1.658 0 | 140 | 1.028 44 | 972.34 | 657.20 | 1.650 1 | 140 | 1.020 18 | 980.22 | 671.38 | 1.634 8 |
| 1.036 81 | 964.49 | 670.59 | 1.707 1 | 145 | 1.032 39 | 968.63 | 677.55 | 1.699 1 | 145 | 1.023 96 | 976.60 | 691.58 | 1.683 4 |
| 1.040 96 | 960.65 | 691.05 | 1.755 8 | 150 | 1.036 43 | 964.85 | 697.93 | 1.747 5 | 150 | 1.027 83 | 972.93 | 711.80 | 1.731 5 |
| 1.045 21 | 956.75 | 711.54 | 1.803 9 | 155 | 1.040 58 | 961.00 | 718.33 | 1.795 4 | 155 | 1.031 78 | 969.20 | 732.05 | 1.779 1 |
| 1.049 56 | 952.78 | 732.06 | 1.851 6 | 160 | 1.044 82 | 957.10 | 738.76 | 1.842 9 | 160 | 1.035 82 | 965.42 | 752.31 | 1.826 1 |
| 1.054 02 | 948.75 | 752.61 | 1.898 8 | 165 | 1.049 16 | 953.14 | 759.23 | 1.889 8 | 165 | 1.039 96 | 961.58 | 772.61 | 1.872 7 |
| 1.058 59 | 944.66 | 773.20 | 1.945 5 | 170 | 1.053 61 | 949.12 | 779.72 | 1.936 4 | 170 | 1.044 18 | 957.69 | 792.92 | 1.918 8 |
| 1.063 27 | 940.50 | 793.82 | 1.991 7 | 175 | 1.058 16 | 945.04 | 800.24 | 1.982 4 | 175 | 1.048 50 | 953.74 | 813.27 | 1.964 5 |
| 1.068 06 | 936.28 | 814.47 | 2.037 6 | 180 | 1.062 82 | 940.90 | 820.80 | 2.028 0 | 180 | 1.052 92 | 949.74 | 833.64 | 2.009 7 |
| 1.072 97 | 931.99 | 835.17 | 2.083 0 | 185 | 1.067 58 | 936.70 | 841.39 | 2.073 2 | 185 | 1.057 43 | 945.69 | 854.05 | 2.054 5 |
| 1.077 99 | 927.65 | 855.91 | 2.128 0 | 190 | 1.072 46 | 932.44 | 862.02 | 2.118 0 | 190 | 1.062 04 | 941.59 | 874.48 | 2.098 8 |
| 1.083 14 | 923.24 | 876.69 | 2.172 6 | 195 | 1.077 45 | 928.12 | 882.69 | 2.162 4 | 195 | 1.066 75 | 937.43 | 894.95 | 2.142 8 |
| 1.088 41 | 918.77 | 897.51 | 2.216 9 | 200 | 1.082 56 | 923.74 | 903.40 | 2.206 4 | 200 | 1.071 56 | 933.22 | 915.46 | 2.186 3 |
| 1.093 34 | 909.63 | 939.30 | 2.304 3 | 210 | 1.093 13 | 914.81 | 944.94 | 2.293 3 | 210 | 1.081 49 | 924.65 | 956.57 | 2.272 3 |
| 1.110 81 | 900.24 | 981.29 | 2.390 3 | 220 | 1.104 20 | 905.64 | 986.68 | 2.378 8 | 220 | 1.091 86 | 915.86 | 997.83 | 2.356 9 |
| 1.122 85 | 890.59 | 1023.5 | 2.475 0 | 230 | 1.115 79 | 896.22 | 1028.6 | 2.462 9 | 230 | 1.102 69 | 906.87 | 1039.3 | 2.440 0 |
| 1.135 50 | 880.67 | 1066.0 | 2.558 6 | 240 | 1.127 95 | 886.57 | 1070.8 | 2.545 9 | 240 | 1.113 99 | 897.67 | 1080.9 | 2.521 9 |
| 1.148 79 | 870.48 | 1108.7 | 2.641 0 | 250 | 1.140 69 | 876.66 | 1113.1 | 2.627 7 | 250 | 1.125 80 | 888.26 | 1122.7 | 2.602 6 |
| 1.162 78 | 860.01 | 1151.6 | 2.722 4 | 260 | 1.154 07 | 866.50 | 1155.8 | 2.708 4 | 260 | 1.138 14 | 878.63 | 1164.7 | 2.682 1 |
| 1.177 51 | 849.25 | 1194.9 | 2.802 8 | 270 | 1.168 12 | 856.08 | 1198.6 | 2.788 1 | 270 | 1.151 04 | 868.78 | 1206.9 | 2.760 5 |
| 1.193 04 | 838.19 | 1238.5 | 2.882 4 | 280 | 1.182 89 | 845.39 | 1241.8 | 2.866 9 | 280 | 1.164 53 | 858.72 | 1249.3 | 2.838 0 |
| 1.209 44 | 826.83 | 1282.5 | 2.961 2 | 290 | 1.198 44 | 834.42 | 1285.3 | 2.944 8 | 290 | 1.178 65 | 848.43 | 1292.0 | 2.914 4 |

Table 3. Compressed Water and Superheated Steam (continued)

| 90 MPa | | | | t, °C | 100 MPa | | | | t, °C | 120 MPa | | | |
|--------|--------|--------|--------|-------|---------|--------|--------|--------|-------|---------|--------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.2268 | 815.14 | 1326.8 | 3.0392 | 300 | 1.2148 | 823.17 | 1329.1 | 3.0219 | 300 | 1.1934 | 837.91 | 1334.9 | 2.9900 |
| 1.2451 | 803.12 | 1371.6 | 3.1166 | 310 | 1.2321 | 811.63 | 1373.3 | 3.0983 | 310 | 1.2090 | 827.16 | 1378.1 | 3.0647 |
| 1.2646 | 790.75 | 1416.8 | 3.1934 | 320 | 1.2503 | 799.79 | 1417.8 | 3.1740 | 320 | 1.2252 | 816.18 | 1421.6 | 3.1387 |
| 1.2853 | 778.02 | 1462.4 | 3.2697 | 330 | 1.2696 | 787.63 | 1462.8 | 3.2492 | 330 | 1.2423 | 804.95 | 1465.4 | 3.2119 |
| 1.3074 | 764.90 | 1508.6 | 3.3456 | 340 | 1.2901 | 775.15 | 1508.2 | 3.3238 | 340 | 1.2603 | 793.48 | 1509.5 | 3.2845 |
| 1.3308 | 751.40 | 1555.3 | 3.4212 | 350 | 1.3118 | 762.34 | 1554.0 | 3.3979 | 350 | 1.2792 | 781.77 | 1554.0 | 3.3564 |
| 1.3560 | 737.48 | 1602.6 | 3.4965 | 360 | 1.3348 | 749.18 | 1600.3 | 3.4717 | 360 | 1.2990 | 769.80 | 1598.8 | 3.4277 |
| 1.3829 | 723.14 | 1650.5 | 3.5716 | 370 | 1.3593 | 735.67 | 1647.1 | 3.5451 | 370 | 1.3200 | 757.57 | 1644.0 | 3.4985 |
| 1.4117 | 708.34 | 1699.1 | 3.6466 | 380 | 1.3854 | 721.80 | 1694.5 | 3.6182 | 380 | 1.3421 | 745.09 | 1689.5 | 3.5688 |
| 1.4428 | 693.08 | 1748.5 | 3.7216 | 390 | 1.4133 | 707.56 | 1742.5 | 3.6911 | 390 | 1.3655 | 732.35 | 1735.5 | 3.6386 |
| 1.4763 | 677.35 | 1798.6 | 3.7966 | 400 | 1.4431 | 692.93 | 1791.1 | 3.7639 | 400 | 1.3901 | 719.35 | 1781.9 | 3.7081 |
| 1.5126 | 661.13 | 1849.6 | 3.8718 | 410 | 1.4751 | 677.92 | 1840.4 | 3.8365 | 410 | 1.4162 | 706.10 | 1828.7 | 3.7771 |
| 1.5518 | 644.41 | 1901.5 | 3.9472 | 420 | 1.5094 | 662.53 | 1890.4 | 3.9091 | 420 | 1.4439 | 692.59 | 1876.0 | 3.8458 |
| 1.5944 | 627.20 | 1954.3 | 4.0228 | 430 | 1.5462 | 646.77 | 1941.1 | 3.9818 | 430 | 1.4731 | 678.84 | 1923.8 | 3.9142 |
| 1.6407 | 609.51 | 2008.1 | 4.0988 | 440 | 1.5857 | 630.63 | 1992.5 | 4.0544 | 440 | 1.5041 | 664.85 | 1972.0 | 3.9823 |
| 1.6910 | 591.38 | 2062.9 | 4.1751 | 450 | 1.6282 | 614.16 | 2044.7 | 4.1271 | 450 | 1.5370 | 650.64 | 2020.7 | 4.0502 |
| 1.7457 | 572.83 | 2118.7 | 4.2517 | 460 | 1.6740 | 597.37 | 2097.7 | 4.1998 | 460 | 1.5718 | 636.23 | 2069.9 | 4.1177 |
| 1.8052 | 553.96 | 2175.4 | 4.3286 | 470 | 1.7232 | 580.32 | 2151.4 | 4.2725 | 470 | 1.6086 | 621.65 | 2119.6 | 4.1850 |
| 1.8696 | 534.86 | 2233.0 | 4.4056 | 480 | 1.7760 | 563.06 | 2205.7 | 4.3452 | 480 | 1.6477 | 606.92 | 2169.7 | 4.2520 |
| 1.9392 | 515.67 | 2291.4 | 4.4826 | 490 | 1.8326 | 545.68 | 2260.7 | 4.4177 | 490 | 1.6890 | 592.08 | 2220.2 | 4.3186 |
| 2.0140 | 496.53 | 2350.3 | 4.5592 | 500 | 1.8930 | 528.28 | 2316.2 | 4.4900 | 500 | 1.7325 | 577.19 | 2271.0 | 4.3848 |
| 2.1784 | 459.05 | 2468.8 | 4.7106 | 520 | 2.0251 | 493.80 | 2428.1 | 4.6329 | 520 | 1.8267 | 547.42 | 2373.7 | 4.5159 |
| 2.3607 | 423.60 | 2586.9 | 4.8576 | 540 | 2.1715 | 460.51 | 2540.2 | 4.7724 | 540 | 1.9302 | 518.08 | 2476.9 | 4.6444 |
| 2.5567 | 391.13 | 2702.5 | 4.9981 | 560 | 2.3301 | 429.16 | 2651.2 | 4.9073 | 560 | 2.0423 | 489.65 | 2580.0 | 4.7697 |
| 2.7612 | 362.16 | 2814.1 | 5.1304 | 580 | 2.4982 | 400.29 | 2759.8 | 5.0361 | 580 | 2.1619 | 462.55 | 2682.2 | 4.8909 |
| 2.9693 | 336.78 | 2920.7 | 5.2540 | 600 | 2.6723 | 374.21 | 2865.1 | 5.1581 | 600 | 2.2879 | 437.09 | 2782.9 | 5.0076 |
| 3.1770 | 314.76 | 3022.0 | 5.3687 | 620 | 2.8494 | 350.95 | 2966.4 | 5.2728 | 620 | 2.4185 | 413.47 | 2881.5 | 5.1192 |
| 3.3818 | 295.70 | 3118.1 | 5.4751 | 640 | 3.0269 | 330.38 | 3063.5 | 5.3803 | 640 | 2.5524 | 391.78 | 2977.5 | 5.2255 |
| 3.5820 | 279.17 | 3209.3 | 5.5740 | 660 | 3.2028 | 312.23 | 3156.4 | 5.4810 | 660 | 2.6881 | 372.01 | 3070.7 | 5.3265 |
| 3.7769 | 264.77 | 3296.2 | 5.6661 | 680 | 3.3760 | 296.21 | 3245.3 | 5.5753 | 680 | 2.8243 | 354.07 | 3161.0 | 5.4222 |
| 3.9662 | 252.13 | 3379.3 | 5.7524 | 700 | 3.5456 | 282.04 | 3330.7 | 5.6639 | 700 | 2.9600 | 337.84 | 3248.4 | 5.5130 |
| 4.1500 | 240.96 | 3459.1 | 5.8335 | 720 | 3.7114 | 269.44 | 3412.7 | 5.7474 | 720 | 3.0946 | 323.15 | 3333.0 | 5.5991 |
| 4.3286 | 231.02 | 3535.9 | 5.9102 | 740 | 3.8732 | 258.18 | 3491.9 | 5.8263 | 740 | 3.2275 | 309.84 | 3415.1 | 5.6809 |
| 4.5022 | 222.11 | 3610.4 | 5.9829 | 760 | 4.0311 | 248.07 | 3568.5 | 5.9012 | 760 | 3.3584 | 297.76 | 3494.7 | 5.7587 |
| 4.6713 | 214.07 | 3682.6 | 6.0522 | 780 | 4.1852 | 238.94 | 3642.8 | 5.9725 | 780 | 3.4871 | 286.77 | 3572.1 | 5.8329 |
| 4.8362 | 206.77 | 3753.0 | 6.1184 | 800 | 4.3358 | 230.64 | 3715.3 | 6.0406 | 800 | 3.6136 | 276.73 | 3647.6 | 5.9039 |
| 4.9972 | 200.11 | 3821.9 | 6.1820 | 820 | 4.4829 | 223.07 | 3786.0 | 6.1059 | 820 | 3.7378 | 267.54 | 3721.3 | 5.9720 |
| 5.1546 | 194.00 | 3889.3 | 6.2431 | 840 | 4.6270 | 216.12 | 3855.2 | 6.1686 | 840 | 3.8598 | 259.08 | 3793.4 | 6.0373 |
| 5.3088 | 188.37 | 3955.5 | 6.3021 | 860 | 4.7681 | 209.73 | 3923.1 | 6.2291 | 860 | 3.9796 | 251.28 | 3864.1 | 6.1003 |
| 5.4599 | 183.15 | 4020.7 | 6.3591 | 880 | 4.9065 | 203.81 | 3989.9 | 6.2875 | 880 | 4.0974 | 244.06 | 3933.5 | 6.1610 |
| 5.6083 | 178.31 | 4085.0 | 6.4144 | 900 | 5.0424 | 198.32 | 4055.6 | 6.3440 | 900 | 4.2132 | 237.35 | 4001.8 | 6.2197 |
| 5.7542 | 173.79 | 4148.5 | 6.4680 | 920 | 5.1760 | 193.20 | 4120.5 | 6.3988 | 920 | 4.3271 | 231.10 | 4069.0 | 6.2766 |
| 5.8976 | 169.56 | 4211.2 | 6.5202 | 940 | 5.3074 | 188.42 | 4184.5 | 6.4521 | 940 | 4.4392 | 225.26 | 4135.4 | 6.3317 |
| 6.0390 | 165.59 | 4273.4 | 6.5710 | 960 | 5.4368 | 183.93 | 4247.9 | 6.5039 | 960 | 4.5497 | 219.79 | 4201.0 | 6.3854 |
| 6.1782 | 161.86 | 4335.0 | 6.6206 | 980 | 5.5642 | 179.72 | 4310.7 | 6.5545 | 980 | 4.6586 | 214.66 | 4265.9 | 6.4375 |
| 6.3157 | 158.34 | 4396.2 | 6.6690 | 1000 | 5.6900 | 175.75 | 4373.0 | 6.6038 | 1000 | 4.7660 | 209.82 | 4330.1 | 6.4884 |
| 6.9789 | 143.29 | 4696.9 | 6.8964 | 1100 | 6.2963 | 158.82 | 4678.4 | 6.8347 | 1100 | 5.2837 | 189.26 | 4644.1 | 6.7258 |
| 7.6110 | 131.39 | 4992.4 | 7.1042 | 1200 | 6.8730 | 145.50 | 4977.6 | 7.0450 | 1200 | 5.7752 | 173.15 | 4950.0 | 6.9409 |
| 8.2201 | 121.65 | 5285.7 | 7.2968 | 1300 | 7.4278 | 134.63 | 5273.8 | 7.2396 | 1300 | 6.2470 | 160.08 | 5251.8 | 7.1391 |
| 8.8119 | 113.48 | 5578.5 | 7.4773 | 1400 | 7.9660 | 125.53 | 5569.1 | 7.4216 | 1400 | 6.7037 | 149.17 | 5551.6 | 7.3239 |
| 9.3902 | 106.49 | 5871.9 | 7.6476 | 1500 | 8.4913 | 117.77 | 5864.4 | 7.5930 | 1500 | 7.1484 | 139.89 | 5850.7 | 7.4975 |
| 9.9580 | 100.42 | 6166.4 | 7.8091 | 1600 | 9.0064 | 111.03 | 6160.6 | 7.7555 | 1600 | 7.5836 | 131.86 | 6150.1 | 7.6618 |
| 11.070 | 90.337 | 6759.9 | 8.1101 | 1800 | 10.013 | 99.867 | 6756.8 | 8.0579 | 1800 | 8.4325 | 118.59 | 6751.4 | 7.9668 |
| 12.158 | 82.249 | 7360.2 | 8.3865 | 2000 | 10.998 | 90.926 | 7359.2 | 8.3352 | 2000 | 9.2603 | 107.99 | 7357.7 | 8.2459 |

Table 3. Compressed Water and Superheated Steam (continued)

| 140 MPa | | | | $t, ^\circ\text{C}$ | 160 MPa | | | | $t, ^\circ\text{C}$ | 180 MPa | | | |
|----------|---------|--------|-----------|---------------------|----------|---------|--------|-----------|---------------------|----------|---------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 0.942 65 | 1060.84 | 130.88 | -0.017 68 | 0 | 0.936 20 | 1068.15 | 148.21 | -0.023 02 | 0 | 0.930 08 | 1075.18 | 165.31 | -0.028 74 |
| 0.943 99 | 1059.33 | 150.15 | 0.052 22 | 5 | 0.937 64 | 1066.51 | 167.35 | 0.046 42 | 5 | 0.931 60 | 1073.42 | 184.34 | 0.040 29 |
| 0.945 45 | 1057.70 | 169.54 | 0.121 31 | 10 | 0.939 18 | 1064.76 | 186.63 | 0.115 11 | 10 | 0.933 21 | 1071.57 | 203.52 | 0.108 63 |
| 0.947 01 | 1055.96 | 189.02 | 0.189 52 | 15 | 0.940 81 | 1062.92 | 206.01 | 0.182 96 | 15 | 0.934 90 | 1069.63 | 222.81 | 0.176 16 |
| 0.948 66 | 1054.12 | 208.58 | 0.256 82 | 20 | 0.942 52 | 1060.99 | 225.47 | 0.249 91 | 20 | 0.936 66 | 1067.62 | 242.18 | 0.242 82 |
| 0.950 40 | 1052.18 | 228.20 | 0.323 18 | 25 | 0.944 31 | 1058.98 | 244.99 | 0.315 95 | 25 | 0.938 49 | 1065.55 | 261.62 | 0.308 57 |
| 0.952 23 | 1050.16 | 247.87 | 0.388 60 | 30 | 0.946 17 | 1056.89 | 264.57 | 0.381 05 | 30 | 0.940 38 | 1063.40 | 281.11 | 0.373 41 |
| 0.954 15 | 1048.06 | 267.58 | 0.453 08 | 35 | 0.948 11 | 1054.73 | 284.18 | 0.445 23 | 35 | 0.942 33 | 1061.20 | 300.64 | 0.437 31 |
| 0.956 14 | 1045.87 | 287.32 | 0.516 63 | 40 | 0.950 12 | 1052.50 | 303.83 | 0.508 47 | 40 | 0.944 35 | 1058.93 | 320.21 | 0.500 29 |
| 0.958 22 | 1043.60 | 307.09 | 0.579 27 | 45 | 0.952 19 | 1050.21 | 323.50 | 0.570 81 | 45 | 0.946 43 | 1056.60 | 339.80 | 0.562 36 |
| 0.960 37 | 1041.26 | 326.89 | 0.641 00 | 50 | 0.954 34 | 1047.84 | 343.20 | 0.632 24 | 50 | 0.948 57 | 1054.22 | 359.42 | 0.623 53 |
| 0.962 61 | 1038.84 | 346.70 | 0.701 86 | 55 | 0.956 56 | 1045.41 | 362.92 | 0.692 80 | 55 | 0.950 78 | 1051.77 | 379.05 | 0.683 82 |
| 0.964 92 | 1036.35 | 366.54 | 0.761 84 | 60 | 0.958 85 | 1042.91 | 382.66 | 0.752 49 | 60 | 0.953 04 | 1049.27 | 398.70 | 0.743 24 |
| 0.967 31 | 1033.79 | 386.39 | 0.820 99 | 65 | 0.961 21 | 1040.35 | 402.41 | 0.811 34 | 65 | 0.955 38 | 1046.71 | 418.36 | 0.801 82 |
| 0.969 78 | 1031.16 | 406.25 | 0.879 30 | 70 | 0.963 64 | 1037.73 | 422.18 | 0.869 36 | 70 | 0.957 77 | 1044.09 | 438.03 | 0.859 58 |
| 0.972 33 | 1028.46 | 426.13 | 0.936 82 | 75 | 0.966 14 | 1035.04 | 441.95 | 0.926 58 | 75 | 0.960 23 | 1041.42 | 457.72 | 0.916 53 |
| 0.974 95 | 1025.70 | 446.02 | 0.993 54 | 80 | 0.968 71 | 1032.30 | 461.74 | 0.983 01 | 80 | 0.962 75 | 1038.69 | 477.41 | 0.972 69 |
| 0.977 65 | 1022.86 | 465.93 | 1.049 5 | 85 | 0.971 35 | 1029.49 | 481.54 | 1.038 7 | 85 | 0.965 34 | 1035.90 | 497.11 | 1.028 1 |
| 0.980 42 | 1019.97 | 485.84 | 1.104 7 | 90 | 0.974 06 | 1026.63 | 501.35 | 1.093 6 | 90 | 0.967 99 | 1033.07 | 516.83 | 1.082 8 |
| 0.983 27 | 1017.01 | 505.77 | 1.159 2 | 95 | 0.976 85 | 1023.70 | 521.17 | 1.147 8 | 95 | 0.970 71 | 1030.18 | 536.55 | 1.136 7 |
| 0.986 20 | 1013.99 | 525.70 | 1.213 0 | 100 | 0.979 70 | 1020.72 | 540.99 | 1.201 3 | 100 | 0.973 49 | 1027.23 | 556.27 | 1.189 9 |
| 0.989 21 | 1010.91 | 545.65 | 1.266 1 | 105 | 0.982 62 | 1017.69 | 560.83 | 1.254 1 | 105 | 0.976 33 | 1024.24 | 576.01 | 1.242 4 |
| 0.992 29 | 1007.77 | 565.61 | 1.318 6 | 110 | 0.985 61 | 1014.60 | 580.68 | 1.306 3 | 110 | 0.979 24 | 1021.20 | 595.75 | 1.294 3 |
| 0.995 45 | 1004.57 | 585.58 | 1.370 3 | 115 | 0.988 67 | 1011.46 | 600.54 | 1.357 8 | 115 | 0.982 22 | 1018.10 | 615.51 | 1.345 5 |
| 0.998 69 | 1001.32 | 605.57 | 1.421 5 | 120 | 0.991 81 | 1008.26 | 620.41 | 1.408 6 | 120 | 0.985 26 | 1014.96 | 635.27 | 1.396 1 |
| 1.002 00 | 998.00 | 625.57 | 1.472 1 | 125 | 0.995 01 | 1005.01 | 640.29 | 1.458 9 | 125 | 0.988 37 | 1011.77 | 655.05 | 1.446 1 |
| 1.005 39 | 994.64 | 645.58 | 1.522 0 | 130 | 0.998 29 | 1001.72 | 660.19 | 1.508 5 | 130 | 0.991 54 | 1008.53 | 674.83 | 1.495 5 |
| 1.008 86 | 991.22 | 665.61 | 1.571 4 | 135 | 1.001 64 | 998.37 | 680.09 | 1.557 6 | 135 | 0.994 78 | 1005.25 | 694.63 | 1.544 3 |
| 1.012 41 | 987.75 | 685.66 | 1.620 2 | 140 | 1.005 06 | 994.97 | 700.01 | 1.606 1 | 140 | 0.998 08 | 1001.92 | 714.43 | 1.592 5 |
| 1.016 03 | 984.22 | 705.72 | 1.668 5 | 145 | 1.008 55 | 991.52 | 719.95 | 1.654 1 | 145 | 1.001 45 | 998.55 | 734.25 | 1.640 2 |
| 1.019 74 | 980.64 | 725.80 | 1.716 2 | 150 | 1.012 11 | 988.03 | 739.90 | 1.701 5 | 150 | 1.004 89 | 995.13 | 754.09 | 1.687 4 |
| 1.023 53 | 977.01 | 745.90 | 1.763 4 | 155 | 1.015 75 | 984.49 | 759.87 | 1.748 4 | 155 | 1.008 40 | 991.67 | 773.93 | 1.734 0 |
| 1.027 40 | 973.34 | 766.02 | 1.810 1 | 160 | 1.019 46 | 980.91 | 779.86 | 1.794 8 | 160 | 1.011 97 | 988.17 | 793.80 | 1.780 1 |
| 1.031 35 | 969.61 | 786.16 | 1.856 4 | 165 | 1.023 25 | 977.28 | 799.86 | 1.840 7 | 165 | 1.015 62 | 984.62 | 813.67 | 1.825 7 |
| 1.035 38 | 965.83 | 806.32 | 1.902 1 | 170 | 1.027 12 | 973.60 | 819.88 | 1.886 2 | 170 | 1.019 33 | 981.04 | 833.57 | 1.870 9 |
| 1.039 50 | 962.00 | 826.51 | 1.947 4 | 175 | 1.031 06 | 969.88 | 839.92 | 1.931 2 | 175 | 1.023 11 | 977.41 | 853.48 | 1.915 6 |
| 1.043 70 | 958.13 | 846.72 | 1.992 3 | 180 | 1.035 07 | 966.12 | 859.99 | 1.975 7 | 180 | 1.026 96 | 973.75 | 873.41 | 1.959 8 |
| 1.047 99 | 954.21 | 866.96 | 2.036 7 | 185 | 1.039 17 | 962.31 | 880.07 | 2.019 8 | 185 | 1.030 89 | 970.04 | 893.36 | 2.003 6 |
| 1.052 37 | 950.24 | 887.22 | 2.080 7 | 190 | 1.043 34 | 958.46 | 900.18 | 2.063 4 | 190 | 1.034 88 | 966.29 | 913.33 | 2.046 9 |
| 1.056 83 | 946.22 | 907.51 | 2.124 3 | 195 | 1.047 60 | 954.56 | 920.31 | 2.106 7 | 195 | 1.038 95 | 962.51 | 933.32 | 2.089 9 |
| 1.061 39 | 942.16 | 927.83 | 2.167 4 | 200 | 1.051 93 | 950.63 | 940.47 | 2.149 5 | 200 | 1.043 09 | 958.69 | 953.33 | 2.132 4 |
| 1.070 78 | 933.90 | 968.56 | 2.252 6 | 210 | 1.060 86 | 942.64 | 980.86 | 2.234 0 | 210 | 1.051 60 | 950.93 | 993.41 | 2.216 2 |
| 1.080 56 | 925.45 | 1009.4 | 2.336 3 | 220 | 1.070 12 | 934.48 | 1021.4 | 2.316 9 | 220 | 1.060 41 | 943.03 | 1033.6 | 2.298 5 |
| 1.090 74 | 916.81 | 1050.4 | 2.418 6 | 230 | 1.079 74 | 926.15 | 1062.0 | 2.398 5 | 230 | 1.069 54 | 934.98 | 1073.9 | 2.379 4 |
| 1.101 33 | 908.00 | 1091.6 | 2.499 6 | 240 | 1.089 72 | 917.67 | 1102.7 | 2.478 6 | 240 | 1.079 00 | 926.78 | 1114.2 | 2.458 8 |
| 1.112 35 | 899.00 | 1132.9 | 2.579 3 | 250 | 1.100 08 | 909.02 | 1143.6 | 2.557 5 | 250 | 1.088 79 | 918.45 | 1154.7 | 2.537 0 |
| 1.123 83 | 889.81 | 1174.3 | 2.657 8 | 260 | 1.110 84 | 900.22 | 1184.6 | 2.635 2 | 260 | 1.098 94 | 909.97 | 1195.3 | 2.613 9 |
| 1.135 79 | 880.45 | 1216.0 | 2.735 2 | 270 | 1.122 01 | 891.26 | 1225.7 | 2.711 6 | 270 | 1.109 44 | 901.36 | 1236.1 | 2.689 6 |
| 1.148 24 | 870.89 | 1257.8 | 2.811 5 | 280 | 1.133 61 | 882.14 | 1267.0 | 2.787 0 | 280 | 1.120 32 | 892.60 | 1276.9 | 2.764 1 |
| 1.161 23 | 861.16 | 1299.8 | 2.886 8 | 290 | 1.145 66 | 872.86 | 1308.5 | 2.861 3 | 290 | 1.131 59 | 883.71 | 1317.9 | 2.837 5 |

Table 3. Compressed Water and Superheated Steam (continued)

| 140 MPa | | | | $t, ^\circ\text{C}$ | 160 MPa | | | | $t, ^\circ\text{C}$ | 180 MPa | | | |
|---------|--------|--------|--------|---------------------|---------|--------|--------|--------|---------------------|---------|--------|--------|--------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 1.1748 | 851.23 | 1342.0 | 2.9611 | 300 | 1.1582 | 863.42 | 1350.1 | 2.9345 | 300 | 1.1433 | 874.69 | 1359.0 | 2.9099 |
| 1.1889 | 841.11 | 1384.5 | 3.0345 | 310 | 1.1712 | 853.82 | 1391.9 | 3.0068 | 310 | 1.1554 | 865.53 | 1400.3 | 2.9813 |
| 1.2037 | 830.81 | 1427.1 | 3.1070 | 320 | 1.1847 | 844.07 | 1433.9 | 3.0782 | 320 | 1.1679 | 856.24 | 1441.7 | 3.0517 |
| 1.2191 | 820.31 | 1470.0 | 3.1787 | 330 | 1.1988 | 834.16 | 1476.1 | 3.1487 | 330 | 1.1809 | 846.82 | 1483.3 | 3.1211 |
| 1.2352 | 809.62 | 1513.2 | 3.2497 | 340 | 1.2135 | 824.09 | 1518.4 | 3.2183 | 340 | 1.1944 | 837.27 | 1525.0 | 3.1897 |
| 1.2520 | 798.73 | 1556.6 | 3.3199 | 350 | 1.2287 | 813.87 | 1561.0 | 3.2872 | 350 | 1.2083 | 827.59 | 1566.8 | 3.2575 |
| 1.2696 | 787.65 | 1600.2 | 3.3894 | 360 | 1.2446 | 803.49 | 1603.7 | 3.3553 | 360 | 1.2228 | 817.78 | 1608.9 | 3.3244 |
| 1.2880 | 776.38 | 1644.2 | 3.4582 | 370 | 1.2611 | 792.96 | 1646.7 | 3.4226 | 370 | 1.2379 | 807.85 | 1651.0 | 3.3905 |
| 1.3073 | 764.92 | 1688.4 | 3.5265 | 380 | 1.2783 | 782.28 | 1689.9 | 3.4892 | 380 | 1.2534 | 797.80 | 1693.4 | 3.4558 |
| 1.3276 | 753.26 | 1732.9 | 3.5941 | 390 | 1.2963 | 771.45 | 1733.3 | 3.5552 | 390 | 1.2696 | 787.63 | 1735.9 | 3.5205 |
| 1.3488 | 741.41 | 1777.7 | 3.6612 | 400 | 1.3150 | 760.48 | 1777.0 | 3.6205 | 400 | 1.2864 | 777.35 | 1778.6 | 3.5844 |
| 1.3710 | 729.38 | 1822.8 | 3.7277 | 410 | 1.3345 | 749.37 | 1820.8 | 3.6852 | 410 | 1.3039 | 766.96 | 1821.5 | 3.6476 |
| 1.3944 | 717.17 | 1868.3 | 3.7938 | 420 | 1.3548 | 738.12 | 1864.9 | 3.7493 | 420 | 1.3219 | 756.46 | 1864.6 | 3.7102 |
| 1.4189 | 704.79 | 1914.1 | 3.8594 | 430 | 1.3760 | 726.74 | 1909.3 | 3.8128 | 430 | 1.3407 | 745.86 | 1907.8 | 3.7721 |
| 1.4446 | 692.24 | 1960.2 | 3.9245 | 440 | 1.3981 | 715.24 | 1953.9 | 3.8758 | 440 | 1.3602 | 735.17 | 1951.2 | 3.8334 |
| 1.4716 | 679.53 | 2006.6 | 3.9892 | 450 | 1.4212 | 703.63 | 1998.7 | 3.9382 | 450 | 1.3805 | 724.40 | 1994.8 | 3.8941 |
| 1.4999 | 666.69 | 2053.4 | 4.0534 | 460 | 1.4453 | 691.91 | 2043.7 | 4.0001 | 460 | 1.4015 | 713.54 | 2038.6 | 3.9543 |
| 1.5297 | 653.72 | 2100.5 | 4.1172 | 470 | 1.4704 | 680.11 | 2089.0 | 4.0614 | 470 | 1.4232 | 702.62 | 2082.6 | 4.0138 |
| 1.5609 | 640.65 | 2147.9 | 4.1805 | 480 | 1.4965 | 668.23 | 2134.5 | 4.1222 | 480 | 1.4458 | 691.64 | 2126.7 | 4.0727 |
| 1.5936 | 627.50 | 2195.6 | 4.2434 | 490 | 1.5237 | 656.28 | 2180.3 | 4.1826 | 490 | 1.4693 | 680.61 | 2170.9 | 4.1311 |
| 1.6279 | 614.30 | 2243.5 | 4.3059 | 500 | 1.5521 | 644.29 | 2226.2 | 4.2423 | 500 | 1.4935 | 669.55 | 2215.3 | 4.1890 |
| 1.7011 | 587.85 | 2340.1 | 4.4292 | 520 | 1.6122 | 620.27 | 2318.5 | 4.3603 | 520 | 1.5447 | 647.39 | 2304.6 | 4.3029 |
| 1.7807 | 561.58 | 2437.3 | 4.5502 | 540 | 1.6769 | 596.33 | 2411.4 | 4.4759 | 540 | 1.5993 | 625.26 | 2394.2 | 4.4145 |
| 1.8664 | 535.78 | 2534.6 | 4.6685 | 560 | 1.7462 | 572.67 | 2504.5 | 4.5890 | 560 | 1.6575 | 603.33 | 2484.0 | 4.5236 |
| 1.9579 | 510.76 | 2631.7 | 4.7835 | 580 | 1.8198 | 549.51 | 2597.5 | 4.6993 | 580 | 1.7190 | 581.73 | 2573.9 | 4.6302 |
| 2.0544 | 486.77 | 2727.9 | 4.8951 | 600 | 1.8974 | 527.03 | 2690.1 | 4.8066 | 600 | 1.7837 | 560.62 | 2663.6 | 4.7341 |
| 2.1551 | 464.01 | 2822.9 | 5.0026 | 620 | 1.9786 | 505.42 | 2782.0 | 4.9106 | 620 | 1.8514 | 540.14 | 2752.8 | 4.8351 |
| 2.2593 | 442.61 | 2916.4 | 5.1061 | 640 | 2.0627 | 484.79 | 2872.8 | 5.0112 | 640 | 1.9216 | 520.40 | 2841.3 | 4.9331 |
| 2.3661 | 422.65 | 3007.9 | 5.2053 | 660 | 2.1494 | 465.24 | 2962.3 | 5.1082 | 660 | 1.9941 | 501.49 | 2928.8 | 5.0280 |
| 2.4745 | 404.12 | 3097.5 | 5.3003 | 680 | 2.2380 | 446.82 | 3050.4 | 5.2016 | 680 | 2.0684 | 483.47 | 3015.3 | 5.1197 |
| 2.5840 | 386.99 | 3184.9 | 5.3910 | 700 | 2.3281 | 429.54 | 3136.9 | 5.2913 | 700 | 2.1441 | 466.39 | 3100.6 | 5.2082 |
| 2.6938 | 371.22 | 3270.1 | 5.4778 | 720 | 2.4191 | 413.38 | 3221.7 | 5.3776 | 720 | 2.2210 | 450.24 | 3184.5 | 5.2936 |
| 2.8035 | 356.70 | 3353.3 | 5.5606 | 740 | 2.5106 | 398.31 | 3304.8 | 5.4605 | 740 | 2.2987 | 435.02 | 3267.1 | 5.3759 |
| 2.9125 | 343.35 | 3434.3 | 5.6399 | 760 | 2.6023 | 384.28 | 3386.2 | 5.5400 | 760 | 2.3770 | 420.71 | 3348.3 | 5.4553 |
| 3.0206 | 331.06 | 3513.5 | 5.7157 | 780 | 2.6938 | 371.22 | 3466.0 | 5.6165 | 780 | 2.4554 | 407.26 | 3428.1 | 5.5318 |
| 3.1276 | 319.74 | 3590.8 | 5.7884 | 800 | 2.7850 | 359.07 | 3544.2 | 5.6901 | 800 | 2.5339 | 394.64 | 3506.6 | 5.6056 |
| 3.2332 | 309.29 | 3666.4 | 5.8582 | 820 | 2.8756 | 347.76 | 3620.8 | 5.7609 | 820 | 2.6123 | 382.81 | 3583.8 | 5.6769 |
| 3.3375 | 299.62 | 3740.5 | 5.9254 | 840 | 2.9654 | 337.22 | 3696.1 | 5.8291 | 840 | 2.6904 | 371.70 | 3659.6 | 5.7457 |
| 3.4404 | 290.67 | 3813.1 | 5.9901 | 860 | 3.0544 | 327.40 | 3770.1 | 5.8950 | 860 | 2.7680 | 361.27 | 3734.3 | 5.8122 |
| 3.5418 | 282.34 | 3884.5 | 6.0525 | 880 | 3.1425 | 318.22 | 3842.8 | 5.9586 | 880 | 2.8451 | 351.48 | 3807.9 | 5.8765 |
| 3.6418 | 274.59 | 3954.7 | 6.1129 | 900 | 3.2296 | 309.63 | 3914.4 | 6.0202 | 900 | 2.9217 | 342.27 | 3880.4 | 5.9389 |
| 3.7404 | 267.35 | 4023.9 | 6.1714 | 920 | 3.3158 | 301.59 | 3985.0 | 6.0798 | 920 | 2.9976 | 333.60 | 3952.0 | 5.9993 |
| 3.8376 | 260.58 | 4092.1 | 6.2281 | 940 | 3.4010 | 294.03 | 4054.6 | 6.1377 | 940 | 3.0728 | 325.43 | 4022.6 | 6.0580 |
| 3.9335 | 254.23 | 4159.5 | 6.2832 | 960 | 3.4852 | 286.93 | 4123.3 | 6.1939 | 960 | 3.1473 | 317.73 | 4092.3 | 6.1151 |
| 4.0282 | 248.25 | 4226.1 | 6.3367 | 980 | 3.5684 | 280.24 | 4191.3 | 6.2485 | 980 | 3.2212 | 310.45 | 4161.3 | 6.1706 |
| 4.1216 | 242.62 | 4292.0 | 6.3889 | 1000 | 3.6507 | 273.92 | 4258.5 | 6.3018 | 1000 | 3.2943 | 303.56 | 4229.6 | 6.2246 |
| 4.5725 | 218.70 | 4613.3 | 6.6319 | 1100 | 4.0489 | 246.98 | 4586.0 | 6.5494 | 1100 | 3.6494 | 274.02 | 4562.1 | 6.4761 |
| 5.0009 | 199.96 | 4925.3 | 6.8513 | 1200 | 4.4280 | 225.83 | 4903.2 | 6.7725 | 1200 | 3.9888 | 250.70 | 4883.8 | 6.7023 |
| 5.4117 | 184.78 | 5232.0 | 7.0527 | 1300 | 4.7918 | 208.69 | 5214.4 | 6.9769 | 1300 | 4.3148 | 231.76 | 5198.9 | 6.9093 |
| 5.8088 | 172.15 | 5535.9 | 7.2400 | 1400 | 5.1432 | 194.43 | 5522.1 | 7.1665 | 1400 | 4.6299 | 215.99 | 5510.0 | 7.1010 |
| 6.1950 | 161.42 | 5838.6 | 7.4157 | 1500 | 5.4847 | 182.33 | 5827.9 | 7.3440 | 1500 | 4.9361 | 202.59 | 5818.7 | 7.2802 |
| 6.5724 | 152.15 | 6140.9 | 7.5816 | 1600 | 5.8182 | 171.87 | 6133.0 | 7.5114 | 1600 | 5.2349 | 191.03 | 6126.4 | 7.4490 |
| 7.3072 | 136.85 | 6747.0 | 7.8890 | 1800 | 6.4665 | 154.64 | 6743.6 | 7.8211 | 1800 | 5.8152 | 171.96 | 6741.1 | 7.7608 |
| 8.0223 | 124.65 | 7356.9 | 8.1699 | 2000 | 7.0964 | 140.92 | 7357.0 | 8.1036 | 2000 | 6.3784 | 156.78 | 7357.7 | 8.0447 |

Table 3. Compressed Water and Superheated Steam (continued)

| 200 MPa | | | | $t, ^\circ\text{C}$ | 250 MPa | | | | $t, ^\circ\text{C}$ | 300 MPa | | | |
|----------|--------|--------|-----------|---------------------|----------|--------|--------|-----------|---------------------|----------|--------|--------|-----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| 0.924 26 | 1081.9 | 182.21 | -0.034 77 | 0 | 0.910 89 | 1097.8 | 223.68 | -0.050 87 | 0 | 0.898 92 | 1112.4 | 264.27 | -0.067 91 |
| 0.927 52 | 1078.1 | 220.22 | 0.101 91 | 10 | 0.914 37 | 1093.7 | 261.29 | 0.084 35 | 10 | 0.902 52 | 1108.0 | 301.54 | 0.066 08 |
| 0.931 06 | 1074.0 | 258.73 | 0.235 57 | 20 | 0.918 06 | 1089.3 | 299.49 | 0.216 94 | 20 | 0.906 30 | 1103.4 | 339.50 | 0.197 83 |
| 0.932 92 | 1071.9 | 278.10 | 0.301 08 | 25 | 0.919 97 | 1087.0 | 318.72 | 0.281 96 | 25 | 0.908 24 | 1101.0 | 358.62 | 0.262 51 |
| 0.934 83 | 1069.7 | 297.52 | 0.365 67 | 30 | 0.921 92 | 1084.7 | 338.00 | 0.346 08 | 30 | 0.910 21 | 1098.7 | 377.79 | 0.326 29 |
| 0.938 82 | 1065.2 | 336.47 | 0.492 09 | 40 | 0.925 95 | 1080.0 | 376.66 | 0.471 56 | 40 | 0.914 23 | 1093.8 | 416.25 | 0.451 08 |
| 0.943 04 | 1060.4 | 375.53 | 0.614 86 | 50 | 0.930 13 | 1075.1 | 415.41 | 0.593 37 | 50 | 0.918 38 | 1088.9 | 454.77 | 0.572 17 |
| 0.947 48 | 1055.4 | 414.65 | 0.734 09 | 60 | 0.934 49 | 1070.1 | 454.21 | 0.711 61 | 60 | 0.922 65 | 1083.8 | 493.31 | 0.689 64 |
| 0.952 14 | 1050.3 | 453.82 | 0.849 94 | 70 | 0.939 02 | 1064.9 | 493.03 | 0.826 43 | 70 | 0.927 07 | 1078.7 | 531.86 | 0.803 66 |
| 0.957 04 | 1044.9 | 493.03 | 0.962 57 | 80 | 0.943 74 | 1059.6 | 531.87 | 0.938 01 | 80 | 0.931 63 | 1073.4 | 570.41 | 0.914 39 |
| 0.962 18 | 1039.3 | 532.27 | 1.0721 | 90 | 0.948 65 | 1054.1 | 570.73 | 1.0465 | 90 | 0.936 35 | 1068.0 | 608.95 | 1.0220 |
| 0.967 55 | 1033.5 | 571.54 | 1.1788 | 100 | 0.953 75 | 1048.5 | 609.59 | 1.1521 | 100 | 0.941 23 | 1062.4 | 647.49 | 1.1267 |
| 0.973 16 | 1027.6 | 610.83 | 1.2827 | 110 | 0.959 05 | 1042.7 | 648.47 | 1.2549 | 110 | 0.946 27 | 1056.8 | 686.02 | 1.2286 |
| 0.979 02 | 1021.4 | 650.15 | 1.3840 | 120 | 0.964 56 | 1036.7 | 687.37 | 1.3551 | 120 | 0.951 48 | 1051.0 | 724.56 | 1.3279 |
| 0.985 11 | 1015.1 | 689.51 | 1.4829 | 130 | 0.970 26 | 1030.7 | 726.28 | 1.4529 | 130 | 0.956 86 | 1045.1 | 763.11 | 1.4247 |
| 0.991 45 | 1008.6 | 728.90 | 1.5794 | 140 | 0.976 16 | 1024.4 | 765.22 | 1.5483 | 140 | 0.962 41 | 1039.1 | 801.66 | 1.5192 |
| 0.998 04 | 1002.0 | 768.34 | 1.6737 | 150 | 0.982 28 | 1018.0 | 804.19 | 1.6414 | 150 | 0.968 14 | 1032.9 | 840.23 | 1.6114 |
| 1.0049 | 995.15 | 807.82 | 1.7659 | 160 | 0.988 59 | 1011.5 | 843.18 | 1.7325 | 160 | 0.974 04 | 1026.7 | 878.82 | 1.7016 |
| 1.0120 | 988.18 | 847.37 | 1.8562 | 170 | 0.995 12 | 1004.9 | 882.22 | 1.8216 | 170 | 0.980 11 | 1020.3 | 917.44 | 1.7897 |
| 1.0193 | 981.06 | 886.97 | 1.9446 | 180 | 1.0019 | 998.15 | 921.30 | 1.9088 | 180 | 0.986 36 | 1013.8 | 956.08 | 1.8759 |
| 1.0269 | 973.79 | 926.63 | 2.0311 | 190 | 1.0088 | 991.27 | 960.42 | 1.9942 | 190 | 0.992 79 | 1007.3 | 994.76 | 1.9603 |
| 1.0348 | 966.39 | 966.37 | 2.1160 | 200 | 1.0160 | 984.28 | 999.59 | 2.0779 | 200 | 0.999 40 | 1000.6 | 1033.5 | 2.0430 |
| 1.0429 | 958.84 | 1006.2 | 2.1993 | 210 | 1.0234 | 977.18 | 1038.8 | 2.1599 | 210 | 1.0062 | 993.85 | 1072.2 | 2.1241 |
| 1.0513 | 951.16 | 1046.1 | 2.2810 | 220 | 1.0310 | 969.97 | 1078.1 | 2.2404 | 220 | 1.0132 | 987.01 | 1111.0 | 2.2035 |
| 1.0600 | 943.35 | 1086.0 | 2.3612 | 230 | 1.0388 | 962.66 | 1117.4 | 2.3194 | 230 | 1.0203 | 980.09 | 1149.8 | 2.2814 |
| 1.0690 | 935.41 | 1126.1 | 2.4401 | 240 | 1.0468 | 955.25 | 1156.8 | 2.3969 | 240 | 1.0277 | 973.09 | 1188.7 | 2.3579 |
| 1.0783 | 927.35 | 1166.3 | 2.5176 | 250 | 1.0551 | 947.74 | 1196.3 | 2.4731 | 250 | 1.0352 | 966.01 | 1227.6 | 2.4330 |
| 1.0880 | 919.16 | 1206.5 | 2.5938 | 260 | 1.0637 | 940.13 | 1235.8 | 2.5479 | 260 | 1.0429 | 958.85 | 1266.5 | 2.5068 |
| 1.0979 | 910.85 | 1246.9 | 2.6688 | 270 | 1.0725 | 932.43 | 1275.4 | 2.6215 | 270 | 1.0508 | 951.63 | 1305.5 | 2.5792 |
| 1.1081 | 902.41 | 1287.3 | 2.7426 | 280 | 1.0815 | 924.64 | 1315.1 | 2.6938 | 280 | 1.0590 | 944.33 | 1344.6 | 2.6505 |
| 1.1187 | 893.86 | 1327.9 | 2.8153 | 290 | 1.0908 | 916.77 | 1354.8 | 2.7650 | 290 | 1.0673 | 936.97 | 1383.7 | 2.7205 |
| 1.1297 | 885.19 | 1368.6 | 2.8869 | 300 | 1.1003 | 908.81 | 1394.6 | 2.8350 | 300 | 1.0758 | 929.54 | 1422.8 | 2.7894 |
| 1.1527 | 867.51 | 1450.3 | 3.0270 | 320 | 1.1203 | 892.64 | 1474.4 | 2.9719 | 320 | 1.0935 | 914.51 | 1501.2 | 2.9238 |
| 1.1773 | 849.39 | 1532.5 | 3.1633 | 340 | 1.1413 | 876.17 | 1554.5 | 3.1048 | 340 | 1.1120 | 899.25 | 1579.8 | 3.0541 |
| 1.2036 | 830.83 | 1615.2 | 3.2961 | 360 | 1.1636 | 859.41 | 1634.9 | 3.2338 | 360 | 1.1315 | 883.78 | 1658.5 | 3.1805 |
| 1.2317 | 811.87 | 1698.4 | 3.4255 | 380 | 1.1871 | 842.38 | 1715.7 | 3.3594 | 380 | 1.1519 | 868.14 | 1737.5 | 3.3033 |
| 1.2618 | 792.53 | 1782.2 | 3.5518 | 400 | 1.2120 | 825.11 | 1796.7 | 3.4815 | 400 | 1.1732 | 852.34 | 1816.6 | 3.4226 |
| 1.2939 | 772.83 | 1866.5 | 3.6752 | 420 | 1.2382 | 807.62 | 1878.0 | 3.6006 | 420 | 1.1956 | 836.40 | 1895.9 | 3.5386 |
| 1.3283 | 752.82 | 1951.3 | 3.7959 | 440 | 1.2659 | 789.95 | 1959.6 | 3.7166 | 440 | 1.2190 | 820.34 | 1975.3 | 3.6516 |
| 1.3651 | 732.55 | 2036.7 | 3.9140 | 460 | 1.2951 | 772.13 | 2041.5 | 3.8299 | 460 | 1.2435 | 804.21 | 2054.8 | 3.7616 |
| 1.4044 | 712.06 | 2122.6 | 4.0296 | 480 | 1.3259 | 754.20 | 2123.6 | 3.9404 | 480 | 1.2690 | 788.01 | 2134.5 | 3.8688 |
| 1.4463 | 691.43 | 2209.0 | 4.1428 | 500 | 1.3583 | 736.20 | 2206.0 | 4.0483 | 500 | 1.2957 | 771.79 | 2214.2 | 3.9733 |
| 1.5630 | 639.79 | 2426.6 | 4.4154 | 550 | 1.4468 | 691.20 | 2412.7 | 4.3074 | 550 | 1.3674 | 731.32 | 2414.0 | 4.2236 |
| 1.6968 | 589.36 | 2644.9 | 4.6729 | 600 | 1.5458 | 646.91 | 2619.9 | 4.5518 | 600 | 1.4463 | 691.40 | 2613.8 | 4.4593 |
| 1.8456 | 541.84 | 2861.3 | 4.9139 | 650 | 1.6548 | 604.30 | 2826.3 | 4.7817 | 650 | 1.5323 | 652.63 | 2813.1 | 4.6813 |
| 2.0056 | 498.59 | 3073.1 | 5.1374 | 700 | 1.7721 | 564.30 | 3030.4 | 4.9970 | 700 | 1.6244 | 615.61 | 3011.1 | 4.8902 |
| 2.1728 | 460.23 | 3278.5 | 5.3432 | 750 | 1.8955 | 527.56 | 3230.7 | 5.1977 | 750 | 1.7216 | 580.87 | 3206.8 | 5.0862 |
| 2.3434 | 426.73 | 3476.6 | 5.5323 | 800 | 2.0227 | 494.38 | 3426.2 | 5.3843 | 800 | 1.8223 | 548.76 | 3399.3 | 5.2700 |
| 2.6847 | 372.48 | 3852.2 | 5.8671 | 900 | 2.2816 | 438.28 | 3802.1 | 5.7193 | 900 | 2.0292 | 492.80 | 3773.2 | 5.6032 |
| 3.0169 | 331.46 | 4204.9 | 6.1558 | 1000 | 2.5391 | 393.85 | 4159.5 | 6.0118 | 1000 | 2.2374 | 446.94 | 4132.3 | 5.8970 |
| 3.6426 | 274.53 | 4867.0 | 6.6391 | 1200 | 3.0348 | 329.51 | 4834.9 | 6.5049 | 1200 | 2.6439 | 378.23 | 4815.4 | 6.3957 |
| 4.2230 | 236.80 | 5499.5 | 7.0419 | 1400 | 3.5016 | 285.59 | 5480.3 | 6.9158 | 1400 | 3.0315 | 329.87 | 5469.7 | 6.8123 |
| 4.7710 | 209.60 | 6121.0 | 7.3928 | 1600 | 3.9443 | 253.53 | 6112.2 | 7.2726 | 1600 | 3.4015 | 293.99 | 6109.8 | 7.1737 |
| 5.2964 | 188.81 | 6739.6 | 7.7066 | 1800 | 4.3690 | 228.89 | 6739.3 | 7.5907 | 1800 | 3.7572 | 266.16 | 6743.7 | 7.4953 |
| 5.8057 | 172.24 | 7359.2 | 7.9919 | 2000 | 4.7802 | 209.20 | 7365.7 | 7.8791 | 2000 | 4.1018 | 243.79 | 7375.8 | 7.7864 |

Table 3. Compressed Water and Superheated Steam (continued)

| 350 MPa | | | | <i>t</i> , °C | 400 MPa | | | | <i>t</i> , °C | 450 MPa | | | |
|----------|--------|----------|-----------|---------------|----------|--------|----------|-----------|---------------|----------|--------|----------|-----------|
| <i>v</i> | ρ | <i>h</i> | <i>s</i> | | <i>v</i> | ρ | <i>h</i> | <i>s</i> | | <i>v</i> | ρ | <i>h</i> | <i>s</i> |
| 0.888 09 | 1126.0 | 304.15 | -0.085 45 | 0 | 0.878 19 | 1138.7 | 343.44 | -0.103 24 | 0 | 0.869 08 | 1150.6 | 382.24 | -0.121 11 |
| 0.891 74 | 1121.4 | 341.11 | 0.047 42 | 10 | 0.881 87 | 1134.0 | 380.12 | 0.028 61 | 10 | 0.872 76 | 1145.8 | 418.65 | 0.009 79 |
| 0.895 56 | 1116.6 | 378.88 | 0.178 51 | 20 | 0.885 69 | 1129.1 | 417.72 | 0.159 13 | 20 | 0.876 57 | 1140.8 | 456.11 | 0.139 80 |
| 0.897 51 | 1114.2 | 397.92 | 0.242 92 | 25 | 0.887 64 | 1126.6 | 436.70 | 0.223 32 | 25 | 0.878 50 | 1138.3 | 475.04 | 0.203 82 |
| 0.899 48 | 1111.7 | 417.02 | 0.306 44 | 30 | 0.889 61 | 1124.1 | 455.74 | 0.286 66 | 30 | 0.880 45 | 1135.8 | 494.03 | 0.267 01 |
| 0.903 49 | 1106.8 | 455.31 | 0.430 73 | 40 | 0.893 58 | 1119.1 | 493.92 | 0.410 57 | 40 | 0.884 39 | 1130.7 | 532.13 | 0.390 64 |
| 0.907 59 | 1101.8 | 493.66 | 0.551 28 | 50 | 0.897 63 | 1114.0 | 532.14 | 0.530 71 | 50 | 0.888 38 | 1125.6 | 570.25 | 0.510 47 |
| 0.911 79 | 1096.7 | 532.01 | 0.668 16 | 60 | 0.901 75 | 1109.0 | 570.34 | 0.647 14 | 60 | 0.892 42 | 1120.5 | 608.33 | 0.626 54 |
| 0.916 09 | 1091.6 | 570.35 | 0.781 54 | 70 | 0.905 96 | 1103.8 | 608.50 | 0.760 00 | 70 | 0.896 54 | 1115.4 | 646.36 | 0.738 99 |
| 0.920 52 | 1086.3 | 608.66 | 0.891 58 | 80 | 0.910 26 | 1098.6 | 646.62 | 0.869 48 | 80 | 0.900 73 | 1110.2 | 684.31 | 0.848 02 |
| 0.925 07 | 1081.0 | 646.94 | 0.998 48 | 90 | 0.914 67 | 1093.3 | 684.69 | 0.975 79 | 90 | 0.905 01 | 1105.0 | 722.20 | 0.953 83 |
| 0.929 76 | 1075.5 | 685.20 | 1.1024 | 100 | 0.919 18 | 1087.9 | 722.72 | 1.0791 | 100 | 0.909 38 | 1099.7 | 760.04 | 1.0566 |
| 0.934 58 | 1070.0 | 723.45 | 1.2036 | 110 | 0.923 82 | 1082.5 | 760.72 | 1.1796 | 110 | 0.913 85 | 1094.3 | 797.84 | 1.1566 |
| 0.939 55 | 1064.3 | 761.68 | 1.3021 | 120 | 0.928 58 | 1076.9 | 798.70 | 1.2774 | 120 | 0.918 42 | 1088.8 | 835.59 | 1.2538 |
| 0.944 66 | 1058.6 | 799.91 | 1.3981 | 130 | 0.933 46 | 1071.3 | 836.66 | 1.3728 | 130 | 0.923 10 | 1083.3 | 873.32 | 1.3486 |
| 0.949 92 | 1052.7 | 838.14 | 1.4918 | 140 | 0.938 46 | 1065.6 | 874.61 | 1.4658 | 140 | 0.927 89 | 1077.7 | 911.04 | 1.4410 |
| 0.955 32 | 1046.8 | 876.38 | 1.5832 | 150 | 0.943 60 | 1059.8 | 912.56 | 1.5565 | 150 | 0.932 79 | 1072.1 | 948.74 | 1.5312 |
| 0.960 88 | 1040.7 | 914.63 | 1.6725 | 160 | 0.948 86 | 1053.9 | 950.51 | 1.6452 | 160 | 0.937 80 | 1066.3 | 986.43 | 1.6192 |
| 0.966 58 | 1034.6 | 952.89 | 1.7599 | 170 | 0.954 24 | 1047.9 | 988.47 | 1.7318 | 170 | 0.942 92 | 1060.5 | 1024.1 | 1.7053 |
| 0.972 43 | 1028.4 | 991.16 | 1.8453 | 180 | 0.959 76 | 1041.9 | 1026.4 | 1.8165 | 180 | 0.948 15 | 1054.7 | 1061.8 | 1.7894 |
| 0.978 43 | 1022.0 | 1029.5 | 1.9289 | 190 | 0.965 41 | 1035.8 | 1064.4 | 1.8994 | 190 | 0.953 50 | 1048.8 | 1099.5 | 1.8717 |
| 0.984 59 | 1015.7 | 1067.8 | 2.0107 | 200 | 0.971 19 | 1029.7 | 1102.4 | 1.9806 | 200 | 0.958 95 | 1042.8 | 1137.2 | 1.9522 |
| 0.990 89 | 1009.2 | 1106.1 | 2.0909 | 210 | 0.977 09 | 1023.4 | 1140.4 | 2.0601 | 210 | 0.964 52 | 1036.8 | 1175.0 | 2.0311 |
| 0.997 35 | 1002.7 | 1144.5 | 2.1696 | 220 | 0.983 13 | 1017.2 | 1178.4 | 2.1380 | 220 | 0.970 21 | 1030.7 | 1212.7 | 2.1084 |
| 1.0040 | 996.05 | 1182.9 | 2.2466 | 230 | 0.989 30 | 1010.8 | 1216.5 | 2.2144 | 230 | 0.976 00 | 1024.6 | 1250.4 | 2.1842 |
| 1.0107 | 989.38 | 1221.3 | 2.3223 | 240 | 0.995 60 | 1004.4 | 1254.6 | 2.2893 | 240 | 0.981 91 | 1018.4 | 1288.2 | 2.2585 |
| 1.0177 | 982.64 | 1259.8 | 2.3965 | 250 | 1.0020 | 997.97 | 1292.6 | 2.3628 | 250 | 0.987 93 | 1012.2 | 1325.9 | 2.3314 |
| 1.0247 | 975.85 | 1298.3 | 2.4694 | 260 | 1.0086 | 991.47 | 1330.7 | 2.4349 | 260 | 0.994 07 | 1006.0 | 1363.7 | 2.4029 |
| 1.0320 | 969.00 | 1336.8 | 2.5409 | 270 | 1.0153 | 984.93 | 1368.9 | 2.5058 | 270 | 1.0003 | 999.68 | 1401.5 | 2.4731 |
| 1.0394 | 962.09 | 1375.3 | 2.6113 | 280 | 1.0221 | 978.34 | 1407.0 | 2.5753 | 280 | 1.0067 | 993.37 | 1439.3 | 2.5421 |
| 1.0470 | 955.13 | 1413.9 | 2.6804 | 290 | 1.0291 | 971.72 | 1445.2 | 2.6437 | 290 | 1.0132 | 987.01 | 1477.1 | 2.6098 |
| 1.0547 | 948.13 | 1452.5 | 2.7483 | 300 | 1.0362 | 965.05 | 1483.3 | 2.7109 | 300 | 1.0197 | 980.63 | 1514.9 | 2.6764 |
| 1.0707 | 933.98 | 1529.8 | 2.8809 | 320 | 1.0508 | 951.61 | 1559.7 | 2.8419 | 320 | 1.0333 | 967.79 | 1590.6 | 2.8061 |
| 1.0874 | 919.66 | 1607.2 | 3.0092 | 340 | 1.0660 | 938.05 | 1636.2 | 2.9687 | 340 | 1.0473 | 954.85 | 1666.3 | 2.9316 |
| 1.1047 | 905.20 | 1684.7 | 3.1336 | 360 | 1.0818 | 924.38 | 1712.7 | 3.0915 | 360 | 1.0618 | 941.84 | 1742.0 | 3.0531 |
| 1.1228 | 890.60 | 1762.3 | 3.2543 | 380 | 1.0981 | 910.63 | 1789.2 | 3.2105 | 380 | 1.0767 | 928.76 | 1817.6 | 3.1708 |
| 1.1417 | 875.90 | 1840.0 | 3.3714 | 400 | 1.1151 | 896.80 | 1865.8 | 3.3260 | 400 | 1.0921 | 915.64 | 1893.3 | 3.2849 |
| 1.1613 | 861.12 | 1917.7 | 3.4852 | 420 | 1.1326 | 882.92 | 1942.4 | 3.4381 | 420 | 1.1080 | 902.49 | 1969.0 | 3.3957 |
| 1.1817 | 846.27 | 1995.6 | 3.5959 | 440 | 1.1507 | 869.00 | 2019.0 | 3.5470 | 440 | 1.1244 | 889.33 | 2044.6 | 3.5032 |
| 1.2028 | 831.37 | 2073.4 | 3.7036 | 460 | 1.1695 | 855.06 | 2095.6 | 3.6529 | 460 | 1.1413 | 876.16 | 2120.2 | 3.6078 |
| 1.2248 | 816.45 | 2151.3 | 3.8084 | 480 | 1.1889 | 841.13 | 2172.1 | 3.7560 | 480 | 1.1587 | 863.02 | 2195.8 | 3.7095 |
| 1.2476 | 801.53 | 2229.2 | 3.9105 | 500 | 1.2089 | 827.22 | 2248.7 | 3.8563 | 500 | 1.1766 | 849.90 | 2271.3 | 3.8084 |
| 1.3082 | 764.39 | 2424.1 | 4.1547 | 550 | 1.2616 | 792.62 | 2439.9 | 4.0959 | 550 | 1.2235 | 817.35 | 2459.7 | 4.0445 |
| 1.3741 | 727.74 | 2618.7 | 4.3843 | 600 | 1.3183 | 758.53 | 2630.7 | 4.3210 | 600 | 1.2734 | 785.30 | 2647.5 | 4.2661 |
| 1.4451 | 692.00 | 2812.9 | 4.6005 | 650 | 1.3789 | 725.20 | 2820.9 | 4.5328 | 650 | 1.3263 | 753.95 | 2834.8 | 4.4746 |
| 1.5208 | 657.54 | 3006.1 | 4.8043 | 700 | 1.4432 | 692.92 | 3010.4 | 4.7327 | 700 | 1.3822 | 723.50 | 3021.2 | 4.6713 |
| 1.6006 | 624.76 | 3197.8 | 4.9964 | 750 | 1.5107 | 661.94 | 3198.8 | 4.9215 | 750 | 1.4407 | 694.12 | 3206.8 | 4.8573 |
| 1.6836 | 593.97 | 3387.4 | 5.1774 | 800 | 1.5810 | 632.51 | 3385.7 | 5.0998 | 800 | 1.5015 | 666.00 | 3391.4 | 5.0334 |
| 1.8553 | 538.99 | 3758.6 | 5.5081 | 900 | 1.7272 | 578.96 | 3753.7 | 5.4278 | 900 | 1.6284 | 614.09 | 3756.2 | 5.3585 |
| 2.0296 | 492.70 | 4117.9 | 5.8021 | 1000 | 1.8769 | 532.80 | 4112.6 | 5.7214 | 1000 | 1.7592 | 568.44 | 4114.0 | 5.6512 |
| 2.3729 | 421.42 | 4805.8 | 6.3043 | 1200 | 2.1739 | 460.01 | 4803.7 | 6.2259 | 1200 | 2.0209 | 494.83 | 4807.2 | 6.1572 |
| 2.7029 | 369.97 | 5466.5 | 6.7250 | 1400 | 2.4607 | 406.38 | 5469.3 | 6.6497 | 1400 | 2.2747 | 439.61 | 5476.9 | 6.5836 |
| 3.0195 | 331.18 | 6112.8 | 7.0900 | 1600 | 2.7368 | 365.39 | 6120.6 | 7.0174 | 1600 | 2.5194 | 396.92 | 6132.3 | 6.9536 |
| 3.3248 | 300.77 | 6752.4 | 7.4144 | 1800 | 3.0037 | 332.93 | 6764.7 | 7.3442 | 1800 | 2.7562 | 362.82 | 6780.2 | 7.2823 |
| 3.6209 | 276.17 | 7389.3 | 7.7077 | 2000 | 3.2629 | 306.47 | 7405.6 | 7.6393 | 2000 | 2.9864 | 334.85 | 7424.5 | 7.5790 |

Table 3. Compressed Water and Superheated Steam (continued)

| 500 MPa | | | | <i>t</i> , °C | 600 MPa | | | | <i>t</i> , °C | 700 MPa | | | |
|----------|----------|----------|-----------|---------------|----------|----------|----------|-----------|---------------|----------|----------|----------|-----------|
| <i>v</i> | <i>ρ</i> | <i>h</i> | <i>s</i> | | <i>v</i> | <i>ρ</i> | <i>h</i> | <i>s</i> | | <i>v</i> | <i>ρ</i> | <i>h</i> | <i>s</i> |
| 0.860 64 | 1161.9 | 420.60 | -0.138 97 | 0 | 0.845 40 | 1182.9 | 496.19 | -0.174 46 | 0 | 0.835 48 | 1196.9 | 605.83 | -0.082 39 |
| 0.864 30 | 1157.0 | 456.76 | -0.008 96 | 10 | 0.849 01 | 1177.8 | 531.91 | -0.046 04 | 10 | 0.839 10 | 1191.7 | 642.77 | 0.045 81 |
| 0.868 08 | 1152.0 | 494.10 | 0.120 60 | 20 | 0.852 72 | 1172.7 | 569.03 | 0.082 76 | 20 | 0.840 93 | 1189.2 | 661.54 | 0.109 29 |
| 0.870 00 | 1149.4 | 512.98 | 0.184 48 | 25 | 0.854 59 | 1170.1 | 587.84 | 0.146 41 | 25 | 0.842 76 | 1186.6 | 680.41 | 0.172 07 |
| 0.871 93 | 1146.9 | 531.94 | 0.247 55 | 30 | 0.856 48 | 1167.6 | 606.75 | 0.209 31 | 30 | 0.846 44 | 1181.4 | 718.30 | 0.295 04 |
| 0.875 82 | 1141.8 | 569.97 | 0.370 97 | 40 | 0.860 26 | 1162.4 | 644.69 | 0.332 44 | 40 | 0.850 13 | 1176.3 | 756.21 | 0.414 18 |
| 0.879 75 | 1136.7 | 608.02 | 0.490 56 | 50 | 0.864 07 | 1157.3 | 682.64 | 0.451 73 | 50 | 0.853 83 | 1171.2 | 794.01 | 0.529 38 |
| 0.883 72 | 1131.6 | 646.01 | 0.606 35 | 60 | 0.867 90 | 1152.2 | 720.51 | 0.567 15 | 60 | 0.857 55 | 1166.1 | 831.66 | 0.640 75 |
| 0.887 75 | 1126.4 | 683.92 | 0.718 48 | 70 | 0.871 77 | 1147.1 | 758.27 | 0.678 81 | 70 | 0.861 29 | 1161.0 | 869.17 | 0.748 49 |
| 0.891 84 | 1121.3 | 721.75 | 0.827 13 | 80 | 0.875 67 | 1142.0 | 795.90 | 0.786 91 | 80 | 0.865 07 | 1156.0 | 906.53 | 0.852 81 |
| 0.896 00 | 1116.1 | 759.49 | 0.932 53 | 90 | 0.879 63 | 1136.8 | 833.42 | 0.891 67 | 90 | 0.868 88 | 1150.9 | 943.76 | 0.953 95 |
| 0.900 24 | 1110.8 | 797.17 | 1.0349 | 100 | 0.883 63 | 1131.7 | 870.84 | 0.993 31 | 100 | 0.872 75 | 1145.8 | 980.88 | 1.0521 |
| 0.904 56 | 1105.5 | 834.78 | 1.1344 | 110 | 0.887 71 | 1126.5 | 908.17 | 1.0920 | 110 | 0.876 66 | 1140.7 | 1017.9 | 1.1475 |
| 0.908 97 | 1100.1 | 872.35 | 1.2311 | 120 | 0.891 84 | 1121.3 | 945.43 | 1.1881 | 120 | 0.880 62 | 1135.6 | 1054.9 | 1.2404 |
| 0.913 47 | 1094.7 | 909.88 | 1.3254 | 130 | 0.896 05 | 1116.0 | 982.64 | 1.2815 | 130 | 0.884 64 | 1130.4 | 1091.8 | 1.3308 |
| 0.918 07 | 1089.2 | 947.39 | 1.4173 | 140 | 0.900 33 | 1110.7 | 1019.8 | 1.3726 | 140 | 0.888 71 | 1125.2 | 1128.6 | 1.4189 |
| 0.922 77 | 1083.7 | 984.87 | 1.5070 | 150 | 0.904 68 | 1105.4 | 1056.9 | 1.4614 | 150 | 0.892 85 | 1120.0 | 1165.5 | 1.5049 |
| 0.927 56 | 1078.1 | 1022.3 | 1.5945 | 160 | 0.909 11 | 1100.0 | 1094.0 | 1.5480 | 160 | 0.897 04 | 1114.8 | 1202.2 | 1.5889 |
| 0.932 44 | 1072.4 | 1059.8 | 1.6800 | 170 | 0.913 61 | 1094.6 | 1131.1 | 1.6327 | 170 | 0.901 30 | 1109.5 | 1239.0 | 1.6710 |
| 0.937 43 | 1066.7 | 1097.3 | 1.7636 | 180 | 0.918 19 | 1089.1 | 1168.2 | 1.7154 | 180 | 0.905 61 | 1104.2 | 1275.8 | 1.7512 |
| 0.942 52 | 1061.0 | 1134.7 | 1.8454 | 190 | 0.922 84 | 1083.6 | 1205.3 | 1.7963 | 190 | 0.909 99 | 1098.9 | 1312.5 | 1.8297 |
| 0.947 70 | 1055.2 | 1172.2 | 1.9254 | 200 | 0.927 58 | 1078.1 | 1242.3 | 1.8755 | 200 | 0.914 42 | 1093.6 | 1349.2 | 1.9065 |
| 0.952 98 | 1049.3 | 1209.7 | 2.0037 | 210 | 0.932 38 | 1072.5 | 1279.4 | 1.9530 | 210 | 0.918 92 | 1088.2 | 1386.0 | 1.9817 |
| 0.958 36 | 1043.5 | 1247.1 | 2.0805 | 220 | 0.937 27 | 1066.9 | 1316.4 | 2.0289 | 220 | 0.923 47 | 1082.9 | 1422.7 | 2.0554 |
| 0.963 83 | 1037.5 | 1284.6 | 2.1558 | 230 | 0.942 23 | 1061.3 | 1353.5 | 2.1033 | 230 | 0.928 08 | 1077.5 | 1459.4 | 2.1277 |
| 0.969 41 | 1031.6 | 1322.1 | 2.2295 | 240 | 0.947 26 | 1055.7 | 1390.5 | 2.1762 | 240 | 0.932 76 | 1072.1 | 1496.1 | 2.1985 |
| 0.975 08 | 1025.6 | 1359.6 | 2.3019 | 250 | 0.952 37 | 1050.0 | 1427.6 | 2.2477 | 250 | 0.937 49 | 1066.7 | 1532.8 | 2.2680 |
| 0.980 85 | 1019.5 | 1397.1 | 2.3729 | 260 | 0.957 55 | 1044.3 | 1464.6 | 2.3178 | 260 | 0.942 28 | 1061.3 | 1569.5 | 2.3362 |
| 0.986 72 | 1013.5 | 1434.6 | 2.4426 | 270 | 0.962 81 | 1038.6 | 1501.7 | 2.3867 | 270 | 0.947 13 | 1055.8 | 1606.2 | 2.4031 |
| 0.992 69 | 1007.4 | 1472.1 | 2.5110 | 280 | 0.968 15 | 1032.9 | 1538.7 | 2.4542 | 280 | 0.952 03 | 1050.4 | 1642.8 | 2.4688 |
| 0.998 75 | 1001.3 | 1509.6 | 2.5782 | 290 | 0.973 55 | 1027.2 | 1575.7 | 2.5206 | 290 | 0.956 99 | 1044.9 | 1679.5 | 2.5333 |
| 1.0049 | 995.11 | 1547.1 | 2.6442 | 300 | 0.979 03 | 1021.4 | 1612.8 | 2.5858 | 300 | 0.967 09 | 1034.0 | 1752.8 | 2.6590 |
| 1.0175 | 982.77 | 1622.2 | 2.7729 | 320 | 0.990 22 | 1009.9 | 1686.8 | 2.7127 | 320 | 0.977 41 | 1023.1 | 1826.0 | 2.7805 |
| 1.0305 | 970.36 | 1697.2 | 2.8973 | 340 | 1.0017 | 998.31 | 1760.8 | 2.8355 | 340 | 0.987 95 | 1012.2 | 1899.2 | 2.8979 |
| 1.0440 | 957.89 | 1772.2 | 3.0177 | 360 | 1.0135 | 986.72 | 1834.8 | 2.9541 | 360 | 0.998 71 | 1001.3 | 1972.3 | 3.0115 |
| 1.0578 | 945.39 | 1847.2 | 3.1343 | 380 | 1.0255 | 975.12 | 1908.7 | 3.0691 | 380 | 1.0097 | 990.41 | 2045.3 | 3.1216 |
| 1.0720 | 932.85 | 1922.1 | 3.2474 | 400 | 1.0379 | 963.53 | 1982.5 | 3.1804 | 400 | 1.0209 | 979.55 | 2118.2 | 3.2284 |
| 1.0866 | 920.31 | 1997.1 | 3.3570 | 420 | 1.0505 | 951.94 | 2056.3 | 3.2884 | 420 | 1.0323 | 968.73 | 2191.0 | 3.3319 |
| 1.1016 | 907.77 | 2071.9 | 3.4635 | 440 | 1.0634 | 940.38 | 2129.9 | 3.3931 | 440 | 1.0439 | 957.96 | 2263.7 | 3.4325 |
| 1.1170 | 895.25 | 2146.7 | 3.5669 | 460 | 1.0766 | 928.85 | 2203.5 | 3.4949 | 460 | 1.0557 | 947.24 | 2336.3 | 3.5302 |
| 1.1328 | 882.75 | 2221.4 | 3.6675 | 480 | 1.0901 | 917.37 | 2277.0 | 3.5938 | 480 | 1.0677 | 936.58 | 2408.8 | 3.6251 |
| 1.1490 | 870.30 | 2296.1 | 3.7653 | 500 | 1.1038 | 905.94 | 2350.4 | 3.6899 | 500 | 1.0986 | 910.23 | 2589.4 | 3.8516 |
| 1.1913 | 839.41 | 2482.3 | 3.9986 | 550 | 1.1394 | 877.65 | 2533.3 | 3.9192 | 550 | 1.1307 | 884.40 | 2769.3 | 4.0637 |
| 1.2360 | 809.04 | 2667.8 | 4.2175 | 600 | 1.1766 | 849.88 | 2715.5 | 4.1341 | 600 | 1.1639 | 859.16 | 2948.3 | 4.2631 |
| 1.2832 | 779.33 | 2852.7 | 4.4234 | 650 | 1.2155 | 822.73 | 2896.9 | 4.3361 | 650 | 1.1982 | 834.58 | 3126.6 | 4.4511 |
| 1.3326 | 750.43 | 3036.8 | 4.6176 | 700 | 1.2558 | 796.29 | 3077.5 | 4.5267 | 700 | 1.2335 | 810.70 | 3304.1 | 4.6290 |
| 1.3842 | 722.46 | 3220.1 | 4.8013 | 750 | 1.2976 | 770.63 | 3257.4 | 4.7069 | 750 | 1.2698 | 787.55 | 3481.0 | 4.7978 |
| 1.4377 | 695.55 | 3402.5 | 4.9754 | 800 | 1.3408 | 745.81 | 3436.6 | 4.8779 | 800 | 1.3449 | 743.57 | 3832.9 | 5.1113 |
| 1.5495 | 645.36 | 3764.2 | 5.2977 | 900 | 1.4308 | 698.93 | 3792.7 | 5.1952 | 900 | 1.4229 | 702.79 | 4182.5 | 5.3974 |
| 1.6653 | 600.48 | 4120.6 | 5.5892 | 1000 | 1.5243 | 656.02 | 4145.7 | 5.4840 | 1000 | 1.5842 | 631.24 | 4874.7 | 5.9024 |
| 1.8991 | 526.57 | 4815.0 | 6.0960 | 1200 | 1.7160 | 582.74 | 4840.1 | 5.9907 | 1200 | 1.7462 | 572.69 | 5555.8 | 6.3361 |
| 2.1270 | 470.15 | 5488.1 | 6.5246 | 1400 | 1.9056 | 524.77 | 5518.3 | 6.4225 | 1400 | 1.9041 | 525.17 | 6226.3 | 6.7146 |
| 2.3468 | 426.11 | 6147.1 | 6.8967 | 1600 | 2.0891 | 478.68 | 6183.6 | 6.7982 | 1600 | 2.0569 | 486.16 | 6888.7 | 7.0507 |
| 2.5596 | 390.69 | 6798.3 | 7.2270 | 1800 | 2.2664 | 441.23 | 6840.8 | 7.1316 | 1800 | 2.2051 | 453.50 | 7546.0 | 7.3534 |
| 2.7665 | 361.47 | 7445.7 | 7.5252 | 2000 | 2.4387 | 410.06 | 7493.3 | 7.4321 | 2000 | | | | |

Table 3. Compressed Water and Superheated Steam (continued)

| 800 MPa | | | | t, °C | 900 MPa | | | | t, °C | 1000 MPa | | | |
|----------|--------|--------|----------|-------|----------|--------|--------|----------|-------|----------|--------|--------|----------|
| v | ρ | h | s | | v | ρ | h | s | | v | ρ | h | s |
| | | | | 0 | | | | | 0 | | | | |
| | | | | 10 | | | | | 10 | | | | |
| | | | | 20 | | | | | 20 | | | | |
| 0.826 89 | 1209.3 | 715.50 | 0.009 78 | | | | | | | | | | |
| 0.828 67 | 1206.7 | 734.24 | 0.073 16 | 25 | 0.817 57 | 1223.1 | 806.06 | 0.038 01 | 25 | | | | |
| 0.830 46 | 1204.2 | 753.09 | 0.135 88 | 30 | 0.819 31 | 1220.5 | 824.91 | 0.100 70 | 30 | 0.809 13 | 1235.9 | 895.96 | 0.066 52 |
| 0.834 03 | 1199.0 | 790.96 | 0.258 78 | 40 | 0.822 77 | 1215.4 | 862.78 | 0.223 60 | 40 | 0.812 50 | 1230.8 | 933.85 | 0.189 48 |
| 0.837 60 | 1193.9 | 828.84 | 0.377 86 | 50 | 0.826 24 | 1210.3 | 900.66 | 0.342 69 | 50 | 0.815 86 | 1225.7 | 971.75 | 0.308 62 |
| 0.841 17 | 1188.8 | 866.61 | 0.492 96 | 60 | 0.829 70 | 1205.3 | 938.42 | 0.457 76 | 60 | 0.819 21 | 1220.7 | 1009.5 | 0.423 72 |
| 0.844 76 | 1183.8 | 904.21 | 0.604 16 | 70 | 0.833 16 | 1200.3 | 975.99 | 0.568 89 | 70 | 0.822 56 | 1215.7 | 1047.1 | 0.534 82 |
| 0.848 36 | 1178.7 | 941.63 | 0.711 66 | 80 | 0.836 63 | 1195.3 | 1013.4 | 0.676 24 | 80 | 0.825 91 | 1210.8 | 1084.4 | 0.642 10 |
| 0.851 98 | 1173.7 | 978.88 | 0.815 68 | 90 | 0.840 11 | 1190.3 | 1050.5 | 0.780 06 | 90 | 0.829 27 | 1205.9 | 1121.6 | 0.745 80 |
| 0.855 63 | 1168.7 | 1016.0 | 0.916 46 | 100 | 0.843 61 | 1185.4 | 1087.6 | 0.880 58 | 100 | 0.832 64 | 1201.0 | 1158.5 | 0.846 15 |
| 0.859 31 | 1163.7 | 1053.0 | 1.0142 | 110 | 0.847 14 | 1180.4 | 1124.4 | 0.978 06 | 110 | 0.836 02 | 1196.1 | 1195.3 | 0.943 40 |
| 0.863 03 | 1158.7 | 1089.8 | 1.1092 | 120 | 0.850 69 | 1175.5 | 1161.1 | 1.0727 | 120 | 0.839 43 | 1191.3 | 1231.9 | 1.0378 |
| 0.866 79 | 1153.7 | 1126.6 | 1.2016 | 130 | 0.854 27 | 1170.6 | 1197.8 | 1.1647 | 130 | 0.842 86 | 1186.4 | 1268.4 | 1.1295 |
| 0.870 59 | 1148.6 | 1163.3 | 1.2915 | 140 | 0.857 89 | 1165.7 | 1234.3 | 1.2542 | 140 | 0.846 31 | 1181.6 | 1304.8 | 1.2187 |
| 0.874 44 | 1143.6 | 1199.9 | 1.3791 | 150 | 0.861 54 | 1160.7 | 1270.8 | 1.3414 | 150 | 0.849 79 | 1176.8 | 1341.2 | 1.3056 |
| 0.878 33 | 1138.5 | 1236.5 | 1.4646 | 160 | 0.865 23 | 1155.8 | 1307.2 | 1.4265 | 160 | 0.853 30 | 1171.9 | 1377.4 | 1.3903 |
| 0.882 27 | 1133.4 | 1273.1 | 1.5480 | 170 | 0.868 95 | 1150.8 | 1343.6 | 1.5095 | 170 | 0.856 84 | 1167.1 | 1413.7 | 1.4730 |
| 0.886 26 | 1128.3 | 1309.6 | 1.6295 | 180 | 0.872 72 | 1145.8 | 1379.9 | 1.5906 | 180 | 0.860 42 | 1162.2 | 1449.9 | 1.5538 |
| 0.890 29 | 1123.2 | 1346.1 | 1.7092 | 190 | 0.876 52 | 1140.9 | 1416.2 | 1.6698 | 190 | 0.864 02 | 1157.4 | 1486.0 | 1.6327 |
| 0.894 38 | 1118.1 | 1382.6 | 1.7872 | 200 | 0.880 36 | 1135.9 | 1452.5 | 1.7474 | 200 | 0.867 65 | 1152.5 | 1522.1 | 1.7098 |
| 0.898 51 | 1113.0 | 1419.1 | 1.8634 | 210 | 0.884 24 | 1130.9 | 1488.8 | 1.8232 | 210 | 0.871 32 | 1147.7 | 1558.2 | 1.7853 |
| 0.902 69 | 1107.8 | 1455.5 | 1.9381 | 220 | 0.888 16 | 1125.9 | 1525.0 | 1.8975 | 220 | 0.875 01 | 1142.8 | 1594.3 | 1.8593 |
| 0.906 92 | 1102.6 | 1492.0 | 2.0113 | 230 | 0.892 11 | 1120.9 | 1561.2 | 1.9702 | 230 | 0.878 74 | 1138.0 | 1630.4 | 1.9317 |
| 0.911 19 | 1097.5 | 1528.4 | 2.0830 | 240 | 0.896 11 | 1115.9 | 1597.5 | 2.0415 | 240 | 0.882 50 | 1133.1 | 1666.4 | 2.0026 |
| 0.915 51 | 1092.3 | 1564.9 | 2.1533 | 250 | 0.900 14 | 1110.9 | 1633.7 | 2.1114 | 250 | 0.886 29 | 1128.3 | 1702.5 | 2.0721 |
| 0.919 88 | 1087.1 | 1601.3 | 2.2223 | 260 | 0.904 21 | 1105.9 | 1669.9 | 2.1799 | 260 | 0.890 11 | 1123.5 | 1738.5 | 2.1404 |
| 0.924 30 | 1081.9 | 1637.7 | 2.2900 | 270 | 0.908 32 | 1100.9 | 1706.1 | 2.2472 | 270 | 0.893 96 | 1118.6 | 1774.5 | 2.2073 |
| 0.928 76 | 1076.7 | 1674.1 | 2.3564 | 280 | 0.912 47 | 1095.9 | 1742.2 | 2.3132 | 280 | 0.897 84 | 1113.8 | 1810.5 | 2.2729 |
| 0.933 27 | 1071.5 | 1710.5 | 2.4216 | 290 | 0.916 65 | 1090.9 | 1778.4 | 2.3780 | 290 | 0.901 75 | 1109.0 | 1846.5 | 2.3374 |
| 0.937 82 | 1066.3 | 1746.8 | 2.4856 | 300 | 0.920 87 | 1085.9 | 1814.5 | 2.4416 | 300 | 0.905 69 | 1104.1 | 1882.4 | 2.4007 |
| 0.947 06 | 1055.9 | 1819.6 | 2.6103 | 320 | 0.929 41 | 1076.0 | 1886.8 | 2.5655 | 320 | 0.913 66 | 1094.5 | 1954.3 | 2.5239 |
| 0.956 47 | 1045.5 | 1892.2 | 2.7307 | 340 | 0.938 09 | 1066.0 | 1959.0 | 2.6851 | 340 | 0.921 74 | 1084.9 | 2026.1 | 2.6430 |
| 0.966 06 | 1035.1 | 1964.7 | 2.8472 | 360 | 0.946 92 | 1056.1 | 2031.0 | 2.8008 | 360 | 0.929 93 | 1075.4 | 2097.8 | 2.7580 |
| 0.975 82 | 1024.8 | 2037.2 | 2.9599 | 380 | 0.955 87 | 1046.2 | 2103.0 | 2.9128 | 380 | 0.938 23 | 1065.8 | 2169.4 | 2.8694 |
| 0.985 74 | 1014.5 | 2109.6 | 3.0690 | 400 | 0.964 96 | 1036.3 | 2174.9 | 3.0212 | 400 | 0.946 63 | 1056.4 | 2240.9 | 2.9772 |
| 0.995 83 | 1004.2 | 2181.9 | 3.1748 | 420 | 0.974 18 | 1026.5 | 2246.7 | 3.1263 | 420 | 0.955 14 | 1047.0 | 2312.3 | 3.0817 |
| 1.0061 | 993.95 | 2254.0 | 3.2775 | 440 | 0.983 53 | 1016.7 | 2318.4 | 3.2282 | 440 | 0.963 75 | 1037.6 | 2383.5 | 3.1831 |
| 1.0165 | 983.77 | 2326.1 | 3.3771 | 460 | 0.993 00 | 1007.1 | 2389.9 | 3.3271 | 460 | 0.972 46 | 1028.3 | 2454.7 | 3.2815 |
| 1.0271 | 973.65 | 2398.0 | 3.4739 | 480 | 1.0026 | 997.42 | 2461.3 | 3.4233 | 480 | 0.981 26 | 1019.1 | 2525.7 | 3.3771 |
| 1.0378 | 963.59 | 2469.8 | 3.5680 | 500 | 1.0123 | 987.85 | 2532.6 | 3.5167 | 500 | 0.990 16 | 1009.9 | 2596.6 | 3.4700 |
| 1.0652 | 938.77 | 2648.8 | 3.7923 | 550 | 1.0371 | 964.26 | 2710.4 | 3.7394 | 550 | 1.0128 | 987.37 | 2773.4 | 3.6915 |
| 1.0936 | 914.45 | 2827.0 | 4.0025 | 600 | 1.0625 | 941.17 | 2887.3 | 3.9481 | 600 | 1.0359 | 965.30 | 2949.3 | 3.8990 |
| 1.1227 | 890.71 | 3004.3 | 4.2000 | 650 | 1.0886 | 918.63 | 3063.4 | 4.1442 | 650 | 1.0596 | 943.77 | 3124.5 | 4.0941 |
| 1.1526 | 867.58 | 3180.9 | 4.3863 | 700 | 1.1152 | 896.68 | 3238.7 | 4.3292 | 700 | 1.0837 | 922.79 | 3298.9 | 4.2781 |
| 1.1833 | 845.11 | 3356.8 | 4.5625 | 750 | 1.1424 | 875.35 | 3413.4 | 4.5042 | 750 | 1.1082 | 902.40 | 3472.6 | 4.4522 |
| 1.2146 | 823.30 | 3532.0 | 4.7297 | 800 | 1.1701 | 854.63 | 3587.4 | 4.6703 | 800 | 1.1330 | 882.59 | 3645.8 | 4.6174 |
| 1.2792 | 781.74 | 3880.7 | 5.0404 | 900 | 1.2268 | 815.10 | 3933.8 | 4.9789 | 900 | 1.1838 | 844.75 | 3990.5 | 4.9245 |
| 1.3460 | 742.95 | 4227.6 | 5.3241 | 1000 | 1.2853 | 778.06 | 4278.5 | 5.2609 | 1000 | 1.2357 | 809.23 | 4333.5 | 5.2052 |
| 1.4843 | 673.70 | 4916.6 | 5.8269 | 1200 | 1.4060 | 711.24 | 4964.4 | 5.7613 | 1200 | 1.3427 | 744.75 | 5016.7 | 5.7036 |
| 1.6250 | 615.39 | 5598.7 | 6.2611 | 1400 | 1.5296 | 653.78 | 5646.1 | 6.1952 | 1400 | 1.4524 | 688.50 | 5697.2 | 6.1368 |
| 1.7637 | 567.00 | 6272.9 | 6.6418 | 1600 | 1.6527 | 605.06 | 6322.5 | 6.5772 | 1600 | 1.5627 | 639.92 | 6374.7 | 6.5193 |
| 1.8984 | 526.77 | 6940.0 | 6.9802 | 1800 | 1.7732 | 563.94 | 6993.3 | 6.9174 | 1800 | 1.6715 | 598.26 | 7048.2 | 6.8609 |
| 2.0289 | 492.88 | 7601.7 | 7.2849 | 2000 | 1.8903 | 529.02 | 7659.1 | 7.2241 | 2000 | 1.7777 | 562.52 | 7717.5 | 7.1691 |

Appendix A.

Release on the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use

In this Appendix, we reproduce the IAPWS Release on which the numbers in this report are based. The Release was approved by IAPWS in September 1996. Since we have reproduced the original document exactly as issued, it should be noted that the following 18 pages are self-contained in numbering of pages, tables, sections, etc. These numbers should not be confused with the numbering in the main body of this report.

The International Association for the Properties of Water and Steam

Fredericia, Denmark

September 1996

Release on the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use

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President:

Professor K. Watanabe

Keio University

Department of Mechanical Engineering

Faculty of Science & Technology

3-14-1, Hiyoshi, Kohoku-ku

Yokohama 223, Japan

Executive Secretary:

Dr. R. B. Dooley

Electric Power Research Institute

3412 Hillview Avenue

Palo Alto, California 94303, USA

This release replaces the corresponding release of 1984 and contains 18 numbered pages.

This release has been authorized by the International Association for the Properties of Water and Steam (IAPWS) at its Meeting in Fredericia, Denmark, 8-14 September 1996, for issue by its Secretariat. The members of IAPWS are Argentina, Canada, Czech Republic, Denmark, Germany, France, Italy, Japan, Russia, the United Kingdom, and the United States of America.

The formulation provided in this release is recommended for general and scientific use; further details about the formulation can be found in an article "New International Formulation for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use" by A. Pruß and W. Wagner [1]. This formulation provides the most accurate representation of the thermodynamic properties of the fluid phases of water substance over a wide range of conditions available at the time this release was prepared.

IAPWS also has a formulation intended for industrial use.

Further information about this release and other releases issued by IAPWS can be obtained from the Executive Secretary of IAPWS.

The IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use

1 Nomenclature

Thermodynamic quantities:

| | |
|------------|--|
| B | Second virial coefficient |
| c_p | Specific isobaric heat capacity |
| c_v | Specific isochoric heat capacity |
| f | Specific Helmholtz free energy |
| h | Specific enthalpy |
| M | Molar mass |
| p | Pressure |
| R | Specific gas constant |
| R_m | Molar gas constant |
| s | Specific entropy |
| T | Absolute temperature |
| u | Specific internal energy |
| w | Speed of sound |
| β_s | Isentropic throttling coefficient |
| δ | Reduced density, $\delta = \rho/\rho_c$ |
| δ_T | Isothermal throttling coefficient |
| ϕ | Dimensionless Helmholtz free energy, $\phi = f/(RT)$ |
| κ_T | Isothermal compressibility |
| μ | Joule-Thomson coefficient |
| ρ | Mass density |
| τ | Inverse reduced temperature, $\tau = T_c/T$ |

Superscripts

| | |
|---------------|------------------------|
| ^o | Ideal-gas property |
| ^r | Residual |
| ['] | Saturated liquid state |
| ^{''} | Saturated vapor state |

Subscripts

| | |
|----------|----------------|
| c | critical point |
| σ | saturation |
| t | triple point |

Note: T denotes absolute temperature on the International Temperature Scale of 1990.

2 Reference Constants

$$T_c = 647.096 \text{ K} \quad (1)$$

$$\rho_c = 322 \text{ kg m}^{-3} \quad (2)$$

$$R = 0.461\,518\,05 \text{ kJ kg}^{-1} \text{ K}^{-1} \quad (3)$$

The numerical values for the critical temperature T_c and critical density ρ_c are identical to those given in the IAPWS revised release on the critical parameters of ordinary water substance [2]. The value of the specific gas constant R is derived from values of the molar gas constant R_m [3] and the molar mass M [4], which differ slightly from the accepted values of these quantities at the time this release was prepared. The use of the more recent values would yield a specific gas constant which is greater than the value given in Eq. (3) by about 1 part in 60 000. Since the value of R in Eq. (3) has been used in obtaining the coefficients in the residual part ϕ^r , Eq. (6), then this value of R must be used in obtaining property values from the formulation, Eq. (4).

Due to the use of the *specific* gas constant, Eq. (4) corresponds to a mass-based formulation. In order to convert values of specific properties to molar properties, a choice of the suitable value for the molar mass must be made.

3 The Formulation

The formulation is a fundamental equation for the specific Helmholtz free energy f . This equation is expressed in dimensionless form, $\phi = f/(RT)$, and is separated into two parts, an ideal-gas part ϕ^o and a residual part ϕ^r , so that :

$$\frac{f(\rho, T)}{RT} = \phi(\delta, \tau) = \phi^o(\delta, \tau) + \phi^r(\delta, \tau), \quad (4)$$

where $\delta = \rho/\rho_c$ and $\tau = T_c/T$ with ρ_c , T_c and R given by Eqs. (2), (1) and (3).

The ideal-gas part ϕ^o of the dimensionless Helmholtz free energy is obtained from an equation for the specific isobaric heat capacity in the ideal-gas state developed by J.R. Cooper [5] and reads:

$$\phi^o = \ln \delta + n_1^o + n_2^o \tau + n_3^o \ln \tau + \sum_{i=4}^8 n_i^o \ln \left[1 - e^{-\gamma_i^o \tau} \right], \quad (5)$$

where $\delta = \rho/\rho_c$ and $\tau = T_c/T$ with ρ_c and T_c according to Eqs. (2) and (1). Table 1 contains the coefficients and parameters of Eq. (5).

The form of the residual part ϕ^r of the dimensionless Helmholtz free energy is as follows:

$$\phi^r = \sum_{i=1}^7 n_i \delta^{d_i} \tau^{t_i} + \sum_{i=8}^{51} n_i \delta^{d_i} \tau^{t_i} e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{t_i} e^{-\alpha_i (\delta - \varepsilon_i)^2 - \beta_i (\tau - \gamma_i)^2} + \sum_{i=55}^{56} n_i \Delta^{b_i} \delta \psi \quad (6)$$

with $\Delta = \theta^2 + B_i [(\delta - 1)^2]^{a_i}$

$$\theta = (1 - \tau) + A_i [(\delta - 1)^2]^{1/2\beta_i}$$

$$\psi = e^{-C_i (\delta - 1)^2 - D_i (\tau - 1)^2},$$

where $\delta = \rho/\rho_c$ and $\tau = T_c/T$ with ρ_c and T_c according to Eqs. (2) and (1). The coefficients and parameters of Eq. (6) are listed in Table 2.

Since the 5th International Conference on the Properties of Steam in London in 1956 the specific internal energy and the specific entropy of the saturated liquid at the triple point have been set equal to zero. Thus, at the triple-point temperature $T_t = 273.16$ K

$$u'_t = 0, \quad s'_t = 0. \quad (7)$$

In order to meet this condition, the coefficients n_1^0 and n_2^0 in Eq. (5) have been adjusted accordingly. As a consequence, after calculating for T_t the saturated liquid density ρ'_t via the phase-equilibrium condition (see Table 3), Eq. (4) yields for the specific enthalpy of the saturated liquid at the triple point:

$$h'_t = 0.611\,872 \text{ J kg}^{-1}. \quad (8)$$

In the liquid-water region, small changes in density along an isotherm cause large changes in pressure. For this reason, due to an accumulation of small errors, a particular computer code may fail to return the zeros in Eq. (7) for the saturated liquid density at the triple-point temperature. In order to avoid this blemish, it is advisable to readjust the constants n_1^0 and n_2^0 in Eq. (5) by imposing the condition $u'_t = 0, s'_t = 0$ with the desired accuracy.

4 Relations of Thermodynamic Properties to the Dimensionless Helmholtz Free Energy

All thermodynamic properties can be derived from Eq.(4) by using the appropriate combinations of the ideal-gas part ϕ^o , Eq. (5), and the residual part ϕ^r , Eq. (6), of the dimensionless Helmholtz free energy and their derivatives. Relations between thermodynamic properties and ϕ^o and ϕ^r and their derivatives are summarized in Table 3. All required derivatives of the ideal-gas part and of the residual part of the Helmholtz free energy are explicitly given in Table 4 and Table 5, respectively.

Besides the single-phase region, the formulation also covers the liquid-vapor saturation curve. For given saturation temperature and solving simultaneously the three equations of the phase-equilibrium condition (see Table 3) by iteration, Eq. (6) yields the thermal saturation properties p_σ , ρ' and ρ'' . Then, all the other properties can be derived from Eq. (4). In this way, the properties calculated on the saturation curve are thermodynamically consistent with the properties of the single-phase region.

Note: IAPWS has issued the Supplementary Release on *Saturation Properties of Ordinary Water Substance* [6] containing a set of simple equations which yield values for the vapor pressure as well as the density, specific enthalpy and specific entropy of the saturated vapor and liquid. The values calculated from these equations are not identical with the corresponding values derived from Eq. (4), but agree with them within the uncertainties of the simple equations for the saturation properties.

5 Range of Validity

IAPWS has tested the formulation and endorses its validity in the following way:

- (1) The formulation is valid in the entire stable fluid region of H_2O from the melting-pressure curve [7] to 1273 K at pressures up to 1000 MPa; the lowest temperature on the melting-pressure curve is 251.165 K (at 209.9 MPa) [7], see Fig. 1.

In this entire region, Eq. (4) represents the experimental data available at the time the release was prepared (except for very few data points) to within their uncertainties.

Although Eq. (4) is also in satisfactory agreement with the experimental data in the critical region, the equation has some unsatisfactory features in the immediate vicinity of the critical point. These features involve second order and higher derivatives of the dimensionless Helmholtz free energy and properties obtained from them. Specifically, the isothermal compressibility κ_T ($\kappa_T = \rho^{-1}(\partial\rho/\partial p)_T$), and the specific isobaric heat capacity c_p exhibit unphysical behavior which occurs in a region from T_c to 5 K above T_c for densities $\pm 0.5\%$ from ρ_c . In addition, within a temperature range from 20 mK below T_c up to T_c , the isochoric heat capacity c_v exhibits a maximum and the speed of sound w exhibits a minimum not at the saturation temperature T_σ of the corresponding isochore (as it should be) but in the single-phase region up to 2.5 mK above T_σ .

- (2) In the stable fluid region, the formulation can also be extrapolated beyond the limits given under item (1).

Tests show that Eq. (4) behaves reasonably when extrapolated to pressures up to about

100 GPa and temperatures up to about 5000 K. This holds at least for the density and enthalpy of undissociated H_2O .

In the gas region at pressures below the triple-point pressure, Eq. (4) behaves reasonably when extrapolated to the sublimation-pressure curve [7] for temperatures down to 200 K. Due to the extremely low densities in this region which go down to about $10^{-6} \text{ kg m}^{-3}$, attention must be paid to numerical problems.

- (3) As far as can be tested with experimental data, the formulation behaves reasonably when extrapolated into the metastable regions. Eq. (4) represents the currently available experimental data of the subcooled liquid (solid-liquid metastable region) and of the superheated liquid (liquid-gas metastable region) to within the experimental uncertainty. In the case of the subcooled gas (gas-liquid metastable region), no experimental data are available. In this region, for pressures below 10 MPa, Eq. (4) produces reasonable values close to the saturation line. For calculations further away from the saturation line, an alternative equation (the so-called gas equation) is given in reference [1].

For further details see reference [1].

6 Estimates of Uncertainty

Estimates have been made of the uncertainty of the density, speed of sound, and isobaric heat capacity when calculated from the formulation, Eq. (4). These estimates were derived from comparisons with the various sets of experimental data together with the judgement of the Working Group on Thermophysical Properties of Water and Steam of IAPWS.

For the single-phase region, these tolerances are indicated in Figs. 1 to 3, which give the estimated uncertainties in various areas. As used here "tolerance" means the range of possible values as judged by IAPWS, and no statistical significance can be attached to it. With regard to the uncertainty for the speed of sound and the specific isobaric heat capacity, see Figs. 2 and 3, it should be noted that the uncertainties for these properties increase drastically when approaching the critical point. The statement "no definitive uncertainty estimates possible" for the high-pressure region in Figs. 2 and 3 is based on the lack of experimental data in this region.

For the saturation properties, the estimates of the uncertainties of vapor pressure, saturated liquid density, and saturated vapor density are shown in Fig. 4.

7 Computer-Program Verification

To assist the user in computer-program verification, three tables with test values are given. Table 6 contains values of the ideal-gas part ϕ^o and the residual part ϕ^r of the dimensionless Helmholtz free energy together with the corresponding derivatives. Table 7 lists values for the pressure p , the specific isochoric heat capacity c_v , the speed of sound w , and the specific entropy s calculated at selected values of temperature T and density ρ . Table 8 gives values for the vapor pressure p_σ , values for the density ρ' , specific enthalpy h' and specific entropy s' for the saturated liquid, and values for the density ρ'' , specific enthalpy h'' and specific entropy s'' for the saturated vapor. All these saturation values have been calculated with Eq. (4) by using the phase-equilibrium condition (see the corresponding comment in Section 4).

8 References

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Table 1. Numerical values of the coefficients and parameters of the ideal-gas part of the dimensionless Helmholtz free energy, Eq.(5)

| i | n_i^0 | γ_i^0 | i | n_i^0 | γ_i^0 |
|-----|-------------------|--------------|-----|----------|--------------|
| 1 | -8.320 446 482 01 | — | 5 | 0.973 15 | 3.537 342 22 |
| 2 | 6.683 210 526 8 | — | 6 | 1.279 50 | 7.740 737 08 |
| 3 | 3.006 32 | — | 7 | 0.969 56 | 9.244 377 96 |
| 4 | 0.012 436 | 1.287 289 67 | 8 | 0.248 73 | 27.507 510 5 |

Table 2. Numerical values of the coefficients and parameters of the residual part of the dimensionless Helmholtz free energy, Eq.(6)

| i | c_i | d_i | t_i | n_i | | | | |
|-----|-------|-------|-------|---|------------|-----------|------------|-----------------|
| 1 | - | 1 | -0.5 | $0.125\ 335\ 479\ 355\ 23 \times 10^{-1}$ | | | | |
| 2 | - | 1 | 0.875 | $0.789\ 576\ 347\ 228\ 28 \times 10^1$ | | | | |
| 3 | - | 1 | 1 | $-0.878\ 032\ 033\ 035\ 61 \times 10^1$ | | | | |
| 4 | - | 2 | 0.5 | $0.318\ 025\ 093\ 454\ 18$ | | | | |
| 5 | - | 2 | 0.75 | $-0.261\ 455\ 338\ 593\ 58$ | | | | |
| 6 | - | 3 | 0.375 | $-0.781\ 997\ 516\ 879\ 81 \times 10^{-2}$ | | | | |
| 7 | - | 4 | 1 | $0.880\ 894\ 931\ 021\ 34 \times 10^{-2}$ | | | | |
| 8 | 1 | 1 | 4 | $-0.668\ 565\ 723\ 079\ 65$ | | | | |
| 9 | 1 | 1 | 6 | $0.204\ 338\ 109\ 509\ 65$ | | | | |
| 10 | 1 | 1 | 12 | $-0.662\ 126\ 050\ 396\ 87 \times 10^{-4}$ | | | | |
| 11 | 1 | 2 | 1 | $-0.192\ 327\ 211\ 560\ 02$ | | | | |
| 12 | 1 | 2 | 5 | $-0.257\ 090\ 430\ 034\ 38$ | | | | |
| 13 | 1 | 3 | 4 | $0.160\ 748\ 684\ 862\ 51$ | | | | |
| 14 | 1 | 4 | 2 | $-0.400\ 928\ 289\ 258\ 07 \times 10^{-1}$ | | | | |
| 15 | 1 | 4 | 13 | $0.393\ 434\ 226\ 032\ 54 \times 10^{-6}$ | | | | |
| 16 | 1 | 5 | 9 | $-0.759\ 413\ 770\ 881\ 44 \times 10^{-5}$ | | | | |
| 17 | 1 | 7 | 3 | $0.562\ 509\ 793\ 518\ 88 \times 10^{-3}$ | | | | |
| 18 | 1 | 9 | 4 | $-0.156\ 086\ 522\ 571\ 35 \times 10^{-4}$ | | | | |
| 19 | 1 | 10 | 11 | $0.115\ 379\ 964\ 229\ 51 \times 10^{-8}$ | | | | |
| 20 | 1 | 11 | 4 | $0.365\ 821\ 651\ 442\ 04 \times 10^{-6}$ | | | | |
| 21 | 1 | 13 | 13 | $-0.132\ 511\ 800\ 746\ 68 \times 10^{-11}$ | | | | |
| 22 | 1 | 15 | 1 | $-0.626\ 395\ 869\ 124\ 54 \times 10^{-9}$ | | | | |
| 23 | 2 | 1 | 7 | $-0.107\ 936\ 009\ 089\ 32$ | | | | |
| 24 | 2 | 2 | 1 | $0.176\ 114\ 910\ 087\ 52 \times 10^{-1}$ | | | | |
| 25 | 2 | 2 | 9 | $0.221\ 322\ 951\ 675\ 46$ | | | | |
| 26 | 2 | 2 | 10 | $-0.402\ 476\ 697\ 635\ 28$ | | | | |
| 27 | 2 | 3 | 10 | $0.580\ 833\ 999\ 857\ 59$ | | | | |
| 28 | 2 | 4 | 3 | $0.499\ 691\ 469\ 908\ 06 \times 10^{-2}$ | | | | |
| 29 | 2 | 4 | 7 | $-0.313\ 587\ 007\ 125\ 49 \times 10^{-1}$ | | | | |
| 30 | 2 | 4 | 10 | $-0.743\ 159\ 297\ 103\ 41$ | | | | |
| 31 | 2 | 5 | 10 | $0.478\ 073\ 299\ 154\ 80$ | | | | |
| 32 | 2 | 6 | 6 | $0.205\ 279\ 408\ 959\ 48 \times 10^{-1}$ | | | | |
| 33 | 2 | 6 | 10 | $-0.136\ 364\ 351\ 103\ 43$ | | | | |
| 34 | 2 | 7 | 10 | $0.141\ 806\ 344\ 006\ 17 \times 10^{-1}$ | | | | |
| 35 | 2 | 9 | 1 | $0.833\ 265\ 048\ 807\ 13 \times 10^{-2}$ | | | | |
| 36 | 2 | 9 | 2 | $-0.290\ 523\ 360\ 095\ 85 \times 10^{-1}$ | | | | |
| 37 | 2 | 9 | 3 | $0.386\ 150\ 855\ 742\ 06 \times 10^{-1}$ | | | | |
| 38 | 2 | 9 | 4 | $-0.203\ 934\ 865\ 137\ 04 \times 10^{-1}$ | | | | |
| 39 | 2 | 9 | 8 | $-0.165\ 540\ 500\ 637\ 34 \times 10^{-2}$ | | | | |
| 40 | 2 | 10 | 6 | $0.199\ 555\ 719\ 795\ 41 \times 10^{-2}$ | | | | |
| 41 | 2 | 10 | 9 | $0.158\ 703\ 083\ 241\ 57 \times 10^{-3}$ | | | | |
| 42 | 2 | 12 | 8 | $-0.163\ 885\ 683\ 425\ 30 \times 10^{-4}$ | | | | |
| 43 | 3 | 3 | 16 | $0.436\ 136\ 157\ 238\ 11 \times 10^{-1}$ | | | | |
| 44 | 3 | 4 | 22 | $0.349\ 940\ 054\ 637\ 65 \times 10^{-1}$ | | | | |
| 45 | 3 | 4 | 23 | $-0.767\ 881\ 978\ 446\ 21 \times 10^{-1}$ | | | | |
| 46 | 3 | 5 | 23 | $0.224\ 462\ 773\ 320\ 06 \times 10^{-1}$ | | | | |
| 47 | 4 | 14 | 10 | $-0.626\ 897\ 104\ 146\ 85 \times 10^{-4}$ | | | | |
| 48 | 6 | 3 | 50 | $-0.557\ 111\ 185\ 656\ 45 \times 10^{-9}$ | | | | |
| 49 | 6 | 6 | 44 | $-0.199\ 057\ 183\ 544\ 08$ | | | | |
| 50 | 6 | 6 | 46 | $0.317\ 774\ 973\ 307\ 38$ | | | | |
| 51 | 6 | 6 | 50 | $-0.118\ 411\ 824\ 259\ 81$ | | | | |
| i | c_i | d_i | t_i | n_i | α_i | β_i | γ_i | ε_i |
| 52 | - | 3 | 0 | $-0.313\ 062\ 603\ 234\ 35 \times 10^{-2}$ | 20 | 150 | 1.21 | 1 |
| 53 | - | 3 | 1 | $0.315\ 461\ 402\ 377\ 81 \times 10^{-2}$ | 20 | 150 | 1.21 | 1 |
| 54 | - | 3 | 4 | $-0.252\ 131\ 543\ 416\ 95 \times 10^{-4}$ | 20 | 250 | 1.25 | 1 |
| i | a_i | b_i | B_i | n_i | C_i | D_i | A_i | β_i |
| 55 | 3.5 | 0.85 | 0.2 | $-0.148\ 746\ 408\ 567\ 24$ | 28 | 700 | 0.32 | 0.3 |
| 56 | 3.5 | 0.95 | 0.2 | $0.318\ 061\ 108\ 784\ 44$ | 32 | 800 | 0.32 | 0.3 |

Table 3. Relations of thermodynamic properties to the ideal-gas part ϕ^0 and the residual part ϕ^r of the dimensionless Helmholtz free energy and their derivatives^a

| Property | Relation |
|---|--|
| Pressure $p = \rho^2 (\partial f / \partial \rho)_T$ | $\frac{p(\delta, \tau)}{\rho RT} = 1 + \delta \phi_\delta^r$ |
| Internal energy $u = f - T(\partial f / \partial T)_\rho$ | $\frac{u(\delta, \tau)}{RT} = \tau (\phi_\tau^0 + \phi_\tau^r)$ |
| Entropy $s = -(\partial f / \partial T)_\rho$ | $\frac{s(\delta, \tau)}{R} = \tau (\phi_\tau^0 + \phi_\tau^r) - \phi^0 - \phi^r$ |
| Enthalpy $h = f - T(\partial f / \partial T)_\rho + \rho(\partial f / \partial \rho)_T$ | $\frac{h(\delta, \tau)}{RT} = 1 + \tau (\phi_\tau^0 + \phi_\tau^r) + \delta \phi_\delta^r$ |
| Isochoric heat capacity $c_v = (\partial u / \partial T)_\rho$ | $\frac{c_v(\delta, \tau)}{R} = -\tau^2 (\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r)$ |
| Isobaric heat capacity $c_p = (\partial h / \partial T)_p$ | $\frac{c_p(\delta, \tau)}{R} = -\tau^2 (\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r) + \frac{(1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r)^2}{1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r}$ |
| Speed of sound $w = (\partial p / \partial \rho)_s^{1/2}$ | $\frac{w^2(\delta, \tau)}{RT} = 1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r - \frac{(1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r)^2}{\tau^2 (\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r)}$ |
| Joule-Thomson coefficient $\mu = (\partial T / \partial p)_h$ | $\mu R \rho = \frac{-(\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r + \delta \tau \phi_{\delta\tau}^r)}{(1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r)^2 - \tau^2 (\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r) (1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r)}$ |
| Isothermal throttling coefficient $\delta_T = (\partial h / \partial p)_T$ | $\delta_T \rho = 1 - \frac{1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r}{1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r}$ |
| Isentropic temperature-pressure coefficient $\beta_s = (\partial T / \partial p)_s$ | $\beta_s \rho R = \frac{1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r}{(1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r)^2 - \tau^2 (\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r) (1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r)}$ |
| Second virial coefficient $B(T) = \lim_{\rho \rightarrow 0} (\partial(p/(\rho RT)) / \partial \rho)_T$ | $B(\tau) \rho_c = \lim_{\delta \rightarrow 0} \phi_\delta^r(\delta, \tau)$ |
| Third virial coefficient $C(T) = \lim_{\rho \rightarrow 0} \left[\frac{1}{2} (\partial^2(p/(\rho RT)) / \partial \rho^2)_T \right]$ | $C(\tau) \rho_c^2 = \lim_{\delta \rightarrow 0} \phi_{\delta\delta}^r(\delta, \tau)$ |
| Phase-equilibrium condition (Maxwell criterion) | $\frac{p\sigma}{RT\rho'} = 1 + \delta' \phi_{\delta'}^r(\delta', \tau) \quad ; \quad \frac{p\sigma}{RT\rho''} = 1 + \delta'' \phi_{\delta''}^r(\delta'', \tau)$ $\frac{p\sigma}{RT} \left(\frac{1}{\rho''} - \frac{1}{\rho'} \right) - \ln \left(\frac{\rho'}{\rho''} \right) = \phi^r(\delta', \tau) - \phi^r(\delta'', \tau)$ |

^a $\phi_\delta^r = \left[\frac{\partial \phi^r}{\partial \delta} \right]_\tau$, $\phi_{\delta\delta}^r = \left[\frac{\partial^2 \phi^r}{\partial \delta^2} \right]_\tau$, $\phi_\tau^r = \left[\frac{\partial \phi^r}{\partial \tau} \right]_\delta$, $\phi_{\tau\tau}^r = \left[\frac{\partial^2 \phi^r}{\partial \tau^2} \right]_\delta$, $\phi_{\delta\tau}^r = \left[\frac{\partial^2 \phi^r}{\partial \delta \partial \tau} \right]$, $\phi_\tau^0 = \left[\frac{\partial \phi^0}{\partial \tau} \right]_\delta$, $\phi_{\tau\tau}^0 = \left[\frac{\partial^2 \phi^0}{\partial \tau^2} \right]_\delta$.

Table 5. The residual part ϕ^r of the dimensionless Helmholtz free energy and its derivatives^a

$$\begin{aligned}
\phi^r &= \sum_{i=1}^7 n_i \delta^{d_i} \tau^{t_i} + \sum_{i=8}^{51} n_i \delta^{d_i} \tau^{t_i} e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{t_i} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} + \sum_{i=55}^{56} n_i \Delta^{b_i} \delta \psi \\
&\quad \text{with } \Delta = \theta^2 + B_i [(\delta-1)^2]^{a_i} \\
\theta &= (1-\tau) + A_i [(\delta-1)^2]^{2\beta_i} \\
\psi &= e^{-C_i(\delta-1)^2 - D_i(\tau-1)^2} \\
\phi_\delta^r &= \sum_{i=1}^7 n_i d_i \delta^{d_i-1} \tau^{t_i} + \sum_{i=8}^{51} n_i e^{-\delta^{c_i}} \left[\delta^{d_i-1} \tau^{t_i} (d_i - c_i \delta^{c_i}) \right] + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{t_i} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \left[\frac{d_i}{\delta} - 2\alpha_i(\delta-\varepsilon_i) \right] + \sum_{i=55}^{56} n_i \left[\Delta^{b_i} \left(\psi + \delta \frac{\partial \psi}{\partial \delta} \right) + \frac{\partial \Delta^{b_i}}{\partial \delta} \delta \psi \right] \\
\phi_{\delta\delta}^r &= \sum_{i=1}^7 n_i d_i (d_i - 1) \delta^{d_i-2} \tau^{t_i} + \sum_{i=8}^{51} n_i e^{-\delta^{c_i}} \left[\delta^{d_i-2} \tau^{t_i} ((d_i - c_i \delta^{c_i})(d_i - 1 - c_i \delta^{c_i}) - c_i^2 \delta^{c_i}) \right] + \sum_{i=52}^{54} n_i \tau^{t_i} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \\
&\quad \cdot \left[-2\alpha_i \delta^{d_i} + 4\alpha_i^2 \delta^{d_i} (\delta - \varepsilon_i)^2 - 4d_i \alpha_i \delta^{d_i-1} (\delta - \varepsilon_i) + d_i (d_i - 1) \delta^{d_i-2} \right] + \sum_{i=55}^{56} n_i \left[\Delta^{b_i} \left(2 \frac{\partial \psi}{\partial \delta} + \delta \frac{\partial^2 \psi}{\partial \delta^2} \right) + 2 \frac{\partial \Delta^{b_i}}{\partial \delta} \left(\psi + \delta \frac{\partial \psi}{\partial \delta} \right) + \frac{\partial^2 \Delta^{b_i}}{\partial \delta^2} \delta \psi \right] \\
\phi_\tau^r &= \sum_{i=1}^7 n_i t_i \delta^{d_i} \tau^{t_i-1} + \sum_{i=8}^{51} n_i t_i \delta^{d_i} \tau^{t_i-1} e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{t_i} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \left[\frac{t_i}{\tau} - 2\beta_i(\tau-\gamma_i) \right] + \sum_{i=55}^{56} n_i \delta \left[\frac{\partial \Delta^{b_i}}{\partial \tau} \psi + \Delta^{b_i} \frac{\partial \psi}{\partial \tau} \right] \\
\phi_{\tau\tau}^r &= \sum_{i=1}^7 n_i t_i (t_i - 1) \delta^{d_i} \tau^{t_i-2} + \sum_{i=8}^{51} n_i t_i (t_i - 1) \delta^{d_i} \tau^{t_i-2} e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{t_i} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \left[\left(\frac{t_i}{\tau} - 2\beta_i(\tau-\gamma_i) \right)^2 - \frac{t_i}{\tau^2} - 2\beta_i \right] \\
&\quad + \sum_{i=55}^{56} n_i \delta \left[\frac{\partial^2 \Delta^{b_i}}{\partial \tau^2} \psi + 2 \frac{\partial \Delta^{b_i}}{\partial \tau} \frac{\partial \psi}{\partial \tau} + \Delta^{b_i} \frac{\partial^2 \psi}{\partial \tau^2} \right] \\
\phi_{\delta\tau}^r &= \sum_{i=1}^7 n_i d_i \delta^{d_i-1} \tau^{t_i-1} + \sum_{i=8}^{51} n_i t_i \delta^{d_i-1} \tau^{t_i-1} (d_i - c_i \delta^{c_i}) e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{t_i} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \left[\frac{d_i}{\delta} - 2\alpha_i(\delta-\varepsilon_i) \right] \left[\frac{t_i}{\tau} - 2\beta_i(\tau-\gamma_i) \right] \\
&\quad + \sum_{i=55}^{56} n_i \left[\Delta^{b_i} \left(\frac{\partial \psi}{\partial \tau} + \delta \frac{\partial^2 \psi}{\partial \delta \partial \tau} \right) + \frac{\partial \Delta^{b_i}}{\partial \tau} \frac{\partial \psi}{\partial \delta} + \frac{\partial^2 \Delta^{b_i}}{\partial \delta \partial \tau} \delta \psi \right]
\end{aligned}$$

Table 5. Continued

| Derivatives of the distance function Δ^{b_i} : | | Derivatives of the exponential function ψ : | |
|---|--|---|--|
| $\frac{\partial \Delta^{b_i}}{\partial \delta} = b_i \Delta^{b_i-1} \frac{\partial \Delta}{\partial \delta}$ | | $\frac{\partial \psi}{\partial \delta} = -2C_i(\delta-1)\psi$ | |
| $\frac{\partial^2 \Delta^{b_i}}{\partial \delta^2} = b_i \left\{ \Delta^{b_i-1} \frac{\partial^2 \Delta}{\partial \delta^2} + (b_i-1) \Delta^{b_i-2} \left(\frac{\partial \Delta}{\partial \delta} \right)^2 \right\}$ | | $\frac{\partial^2 \psi}{\partial \delta^2} = \{2C_i(\delta-1)^2 - 1\} 2C_i \psi$ | |
| $\frac{\partial \Delta^{b_i}}{\partial \tau} = -2\theta b_i \Delta^{b_i-1}$ | | $\frac{\partial \psi}{\partial \tau} = -2D_i(\tau-1)\psi$ | |
| $\frac{\partial^2 \Delta^{b_i}}{\partial \tau^2} = 2b_i \Delta^{b_i-1} + 4\theta^2 b_i (b_i-1) \Delta^{b_i-2}$ | | $\frac{\partial^2 \psi}{\partial \tau^2} = \{2D_i(\tau-1)^2 - 1\} 2D_i \psi$ | |
| $\frac{\partial^2 \Delta^{b_i}}{\partial \delta \partial \tau} = -A_i b_i \frac{2}{\beta_i} \Delta^{b_i-1} (\delta-1) [(\delta-1)^2]^{\frac{1}{2\beta_i}-1} - 2\theta b_i (b_i-1) \Delta^{b_i-2} \frac{\partial \Delta}{\partial \delta}$ | | $\frac{\partial^2 \psi}{\partial \delta \partial \tau} = 4C_i D_i (\delta-1)(\tau-1)\psi$ | |
| with | | | |
| $\frac{\partial \Delta}{\partial \delta} = (\delta-1) \left\{ A_i \theta \frac{2}{\beta_i} [(\delta-1)^2]^{\frac{1}{2\beta_i}-1} + 2B_i a_i [(\delta-1)^2]^{a_i-1} \right\}$ | | | |
| $\frac{\partial^2 \Delta}{\partial \delta^2} = \frac{1}{(\delta-1)} \frac{\partial \Delta}{\partial \delta} + (\delta-1)^2 \left\{ 4B_i a_i (a_i-1) [(\delta-1)^2]^{a_i-2} + 2A_i^2 \left(\frac{1}{\beta_i} \right)^2 [(\delta-1)^2]^{\frac{1}{2\beta_i}-1} \right\}$ | | | |
| $+ A_i \theta \frac{4}{\beta_i} \left(\frac{1}{2\beta_i} - 1 \right) [(\delta-1)^2]^{\frac{1}{2\beta_i}-2}$ | | | |
| $^a \phi_\delta^r = \left[\frac{\partial \phi^r}{\partial \delta} \right]_\tau, \phi_{\delta\delta}^r = \left[\frac{\partial^2 \phi^r}{\partial \delta^2} \right]_\tau, \phi_\tau^r = \left[\frac{\partial \phi^r}{\partial \tau} \right]_\delta, \phi_{\tau\tau}^r = \left[\frac{\partial^2 \phi^r}{\partial \tau^2} \right]_\delta, \phi_{\delta\tau}^r = \left[\frac{\partial^2 \phi^r}{\partial \delta \partial \tau} \right]$ | | | |

Table 6. Values for the ideal-gas part ϕ^o , Eq. (5), and for the residual part ϕ^r , Eq. (6), of the dimensionless Helmholtz free energy together with the corresponding derivatives^a for $T = 500$ K and $\rho = 838.025$ kg m⁻³

| | |
|--|--|
| $\phi^o = 0.204\,797\,734 \times 10^1$ | $\phi^r = -0.342\,693\,206 \times 10^1$ |
| $\phi_\delta^o = 0.384\,236\,747$ | $\phi_\delta^r = -0.364\,366\,650$ |
| $\phi_{\delta\delta}^o = -0.147\,637\,878$ | $\phi_{\delta\delta}^r = 0.856\,063\,701$ |
| $\phi_\tau^o = 0.904\,611\,106 \times 10^1$ | $\phi_\tau^r = -0.581\,403\,435 \times 10^1$ |
| $\phi_{\tau\tau}^o = -0.193\,249\,185 \times 10^1$ | $\phi_{\tau\tau}^r = -0.223\,440\,737 \times 10^1$ |
| $\phi_{\delta\tau}^o = 0$ | $\phi_{\delta\tau}^r = -0.112\,176\,915 \times 10^1$ |

^a For the abbreviated notation of the derivatives of ϕ^o and ϕ^r see the footnotes of Tables 4 and 5, respectively.

Table 7. Thermodynamic property values in the single-phase region for selected values of T and ρ

| T/K | $\rho/(\text{kg m}^{-3})$ | p/MPa | $c_v/(\text{kJ kg}^{-1} \text{K}^{-1})$ | $w/(\text{m s}^{-1})$ | $s/(\text{kJ kg}^{-1} \text{K}^{-1})$ |
|-------|-----------------------------|----------------------------------|---|-------------------------------|---------------------------------------|
| 300 | $0.996\,556\,0 \times 10^3$ | $0.992\,42 \times 10^{-1a}$ | $0.413\,018\,111 \times 10^1$ | $0.150\,151\,914 \times 10^4$ | $0.393\,062\,642$ |
| | $0.100\,530\,8 \times 10^4$ | $0.200\,022\,514 \times 10^2$ | $0.406\,798\,347 \times 10^1$ | $0.153\,492\,501 \times 10^4$ | $0.387\,405\,401$ |
| | $0.118\,820\,2 \times 10^4$ | $0.700\,004\,704 \times 10^3$ | $0.346\,135\,580 \times 10^1$ | $0.244\,357\,992 \times 10^4$ | $0.132\,609\,616$ |
| 500 | $0.435\,000\,0$ | $0.999\,679\,423 \times 10^{-1}$ | $0.150\,817\,541 \times 10^1$ | $0.548\,314\,253 \times 10^3$ | $0.794\,488\,271 \times 10^1$ |
| | $0.453\,200\,0 \times 10^1$ | $0.999\,938\,125$ | $0.166\,991\,025 \times 10^1$ | $0.535\,739\,001 \times 10^3$ | $0.682\,502\,725 \times 10^1$ |
| | $0.838\,025\,0 \times 10^3$ | $0.100\,003\,858 \times 10^2$ | $0.322\,106\,219 \times 10^1$ | $0.127\,128\,441 \times 10^4$ | $0.256\,690\,918 \times 10^1$ |
| | $0.108\,456\,4 \times 10^4$ | $0.700\,000\,405 \times 10^3$ | $0.307\,437\,693 \times 10^1$ | $0.241\,200\,877 \times 10^4$ | $0.203\,237\,509 \times 10^1$ |
| 647 | $0.358\,000\,0 \times 10^3$ | $0.220\,384\,756 \times 10^2$ | $0.618\,315\,728 \times 10^1$ | $0.252\,145\,078 \times 10^3$ | $0.432\,092\,307 \times 10^1$ |
| 900 | $0.241\,000\,0$ | $0.100\,062\,559$ | $0.175\,890\,657 \times 10^1$ | $0.724\,027\,147 \times 10^3$ | $0.916\,653\,194 \times 10^1$ |
| | $0.526\,150\,0 \times 10^2$ | $0.200\,000\,690 \times 10^2$ | $0.193\,510\,526 \times 10^1$ | $0.698\,445\,674 \times 10^3$ | $0.659\,070\,225 \times 10^1$ |
| | $0.870\,769\,0 \times 10^3$ | $0.700\,000\,006 \times 10^3$ | $0.266\,422\,350 \times 10^1$ | $0.201\,933\,608 \times 10^4$ | $0.417\,223\,802 \times 10^1$ |

^a In the liquid-water region at low pressures small changes in density along an isotherm cause large changes in pressure. For this reason, due to an accumulation of small errors, a particular computer code or a particular PC may fail to reproduce the pressure value with nine decimal figures. Thus, here only five decimal figures are given.

Table 8. Thermodynamic property values in the two-phase region for selected values of temperature^a

| | $T = 275$ K | $T = 450$ K | $T = 625$ K |
|---|----------------------------------|-------------------------------|-------------------------------|
| p_σ/MPa | $0.698\,451\,167 \times 10^{-3}$ | $0.932\,203\,564$ | $0.169\,082\,693 \times 10^2$ |
| $\rho'/(\text{kg m}^{-3})$ | $0.999\,887\,406 \times 10^3$ | $0.890\,341\,250 \times 10^3$ | $0.567\,090\,385 \times 10^3$ |
| $\rho''/(\text{kg m}^{-3})$ | $0.550\,664\,919 \times 10^{-2}$ | $0.481\,200\,360 \times 10^1$ | $0.118\,290\,280 \times 10^3$ |
| $h'/(\text{kJ kg}^{-1})$ | $0.775\,972\,200 \times 10^1$ | $0.749\,161\,585 \times 10^3$ | $0.168\,626\,976 \times 10^4$ |
| $h''/(\text{kJ kg}^{-1})$ | $0.250\,428\,995 \times 10^4$ | $0.277\,441\,078 \times 10^4$ | $0.255\,071\,625 \times 10^4$ |
| $s'/(\text{kJ kg}^{-1} \text{K}^{-1})$ | $0.283\,094\,669 \times 10^{-1}$ | $0.210\,865\,845 \times 10^1$ | $0.380\,194\,683 \times 10^1$ |
| $s''/(\text{kJ kg}^{-1} \text{K}^{-1})$ | $0.910\,660\,120 \times 10^1$ | $0.660\,921\,221 \times 10^1$ | $0.518\,506\,121 \times 10^1$ |

^a All these test values were calculated from the Helmholtz free energy, Eq. (4), by applying the phase-equilibrium condition (Maxwell criterion).

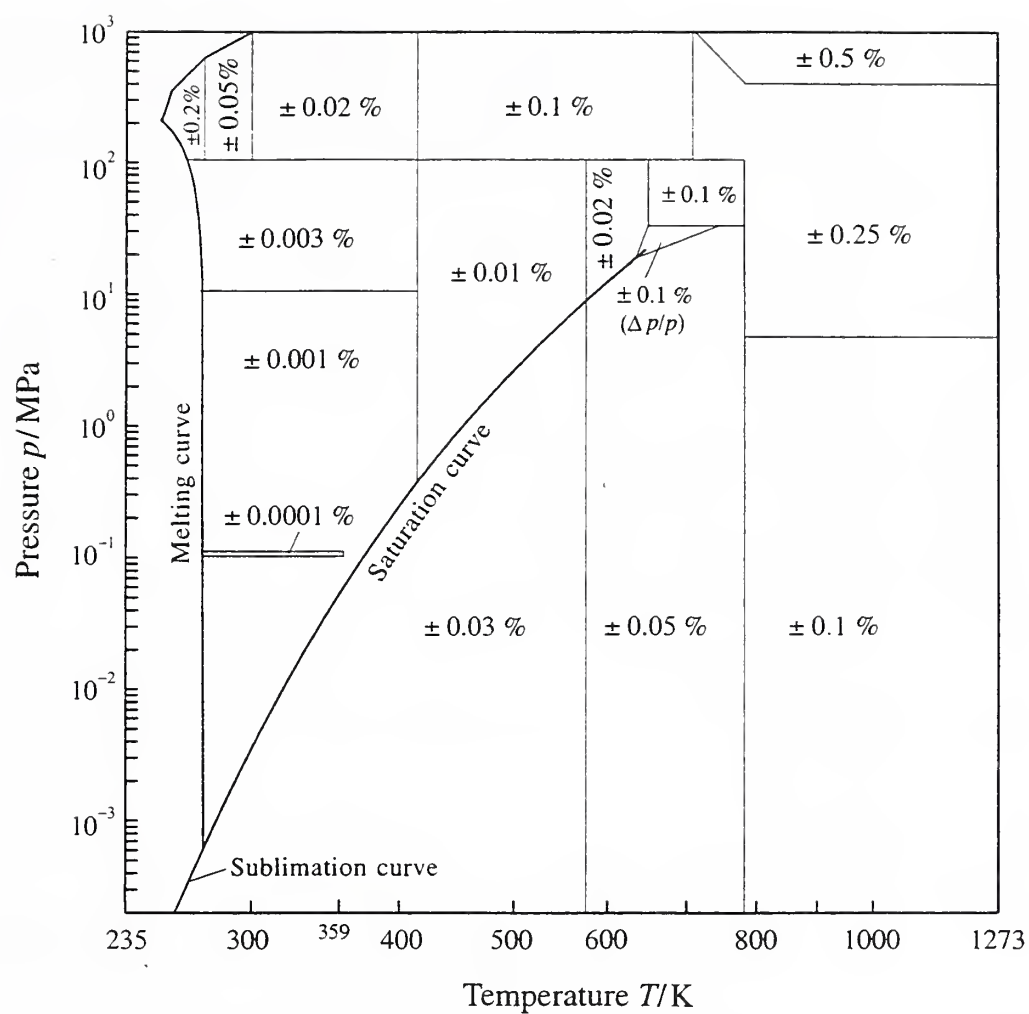


Fig. 1. Uncertainties in density, $\Delta\rho/\rho$, estimated for Eq. (4). In the enlarged critical region (triangle), the uncertainty is given as percentage uncertainty in pressure, $\Delta p/p$. This region is bordered by the two isochores 527 kg m^{-3} and 144 kg m^{-3} and by the 30 MPa isobar. The positions of the lines separating the uncertainty regions are approximate.

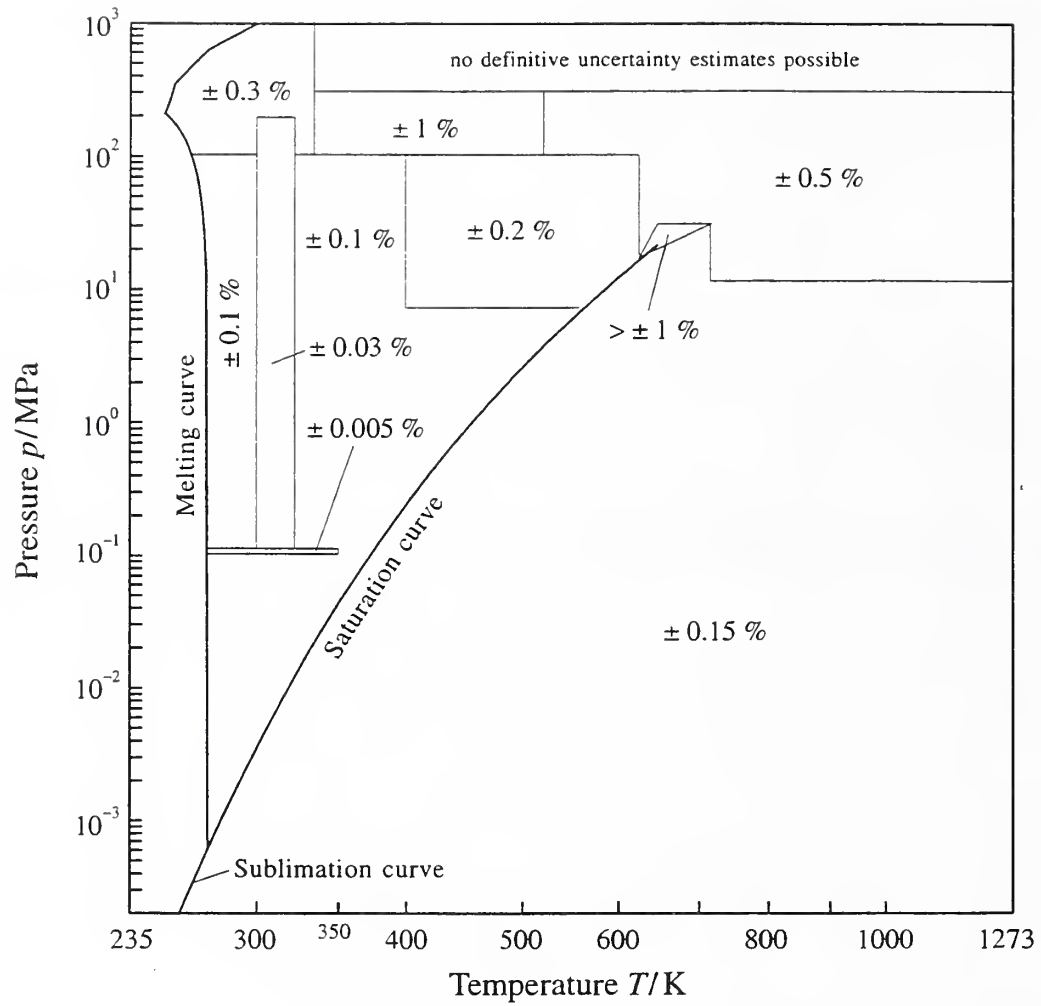


Fig. 2. Uncertainties in speed of sound, $\Delta w/w$, estimated for Eq. (4). For the uncertainty in the triangle around the critical point, see the remark in Section 6; for the definition of this region, see Fig. 1. The positions of the lines separating the uncertainty regions are approximate.

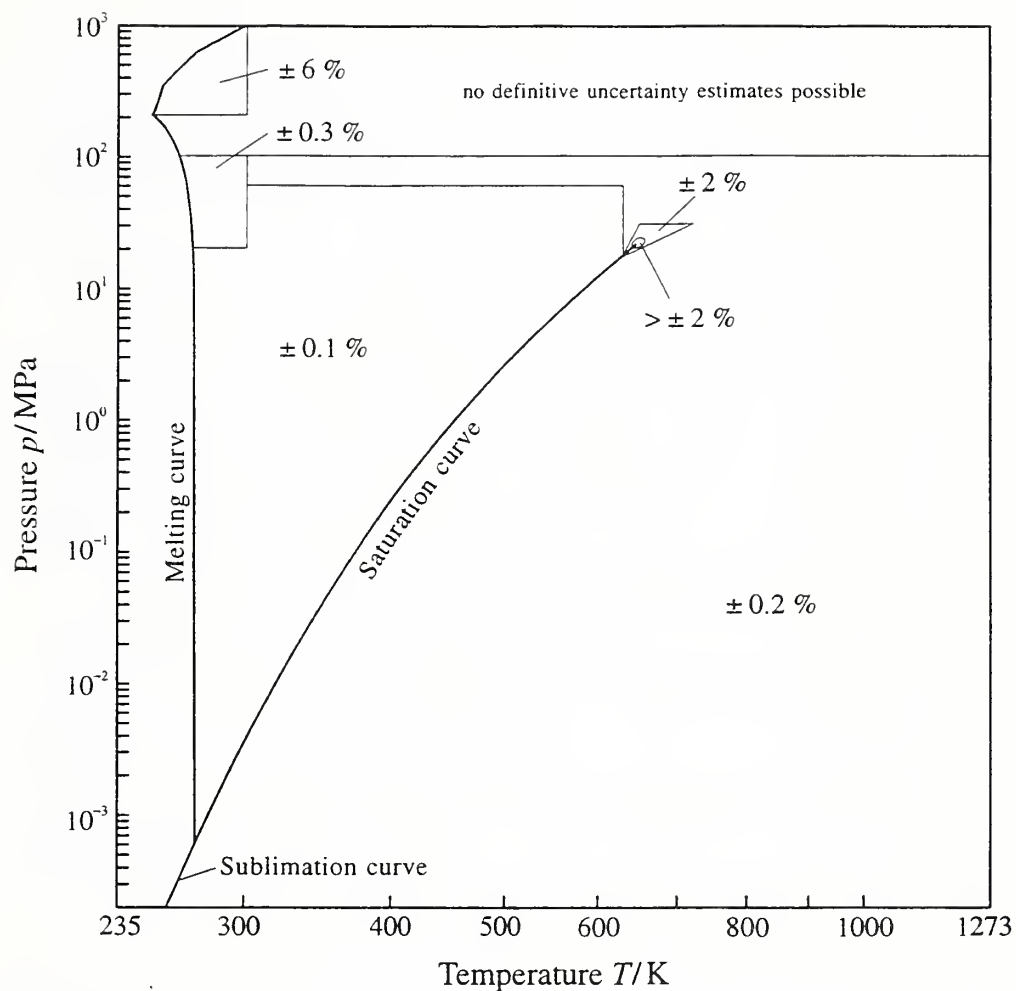


Fig. 3. Uncertainties in specific isobaric heat capacity, $\Delta c_p/c_p$, estimated for Eq. (4). For the uncertainty in the immediate vicinity of the critical point, see the remark in Section 6; for the definition of the triangle around the critical point, see Fig. 1. The positions of the lines separating the uncertainty regions are approximate.

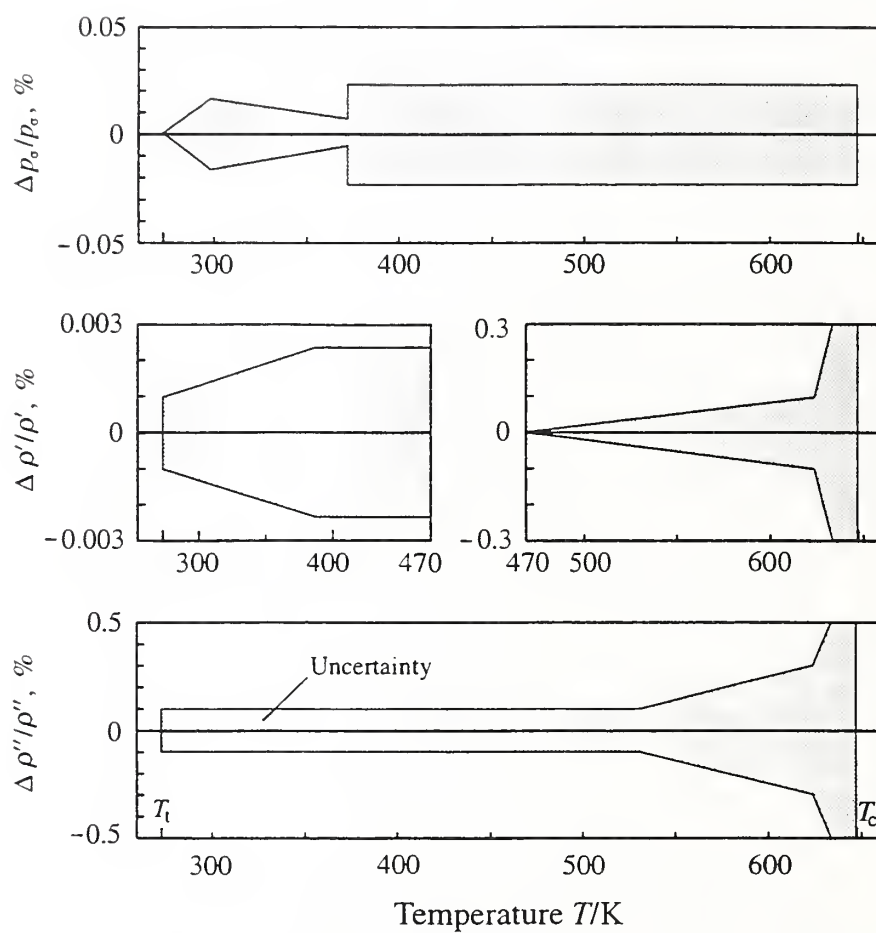


Fig. 4. Uncertainties in vapor pressure, $\Delta p_\sigma/p_\sigma$, in saturated liquid density, $\Delta \rho'/\rho'$, and in saturated vapor density, $\Delta \rho''/\rho''$, estimated for Eq. (4).

